



BEAUTY FOR AMERICA

Proceedings of the
White House Conference
on Natural Beauty

WASHINGTON, D.C.

MAY 24-25, 1965

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BEAUTY FOR AMERICA

The Call of the President

The Transcript of the Conference

Reports of the Panel Chairmen

The Response of the President

Proceedings of the
White House Conference on Natural Beauty

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These proceedings present the edited and in some cases revised transcript of the White House Conference on Natural Beauty, which was held in Washington, D.C., May 24 and 25, 1965. Also included in the volume are the action recommendations of the Conference, President Johnson's address to the Congress of February 8, 1965, and a number of additional statements submitted for the record by participants.

The conference program consisted of two general sessions, 15 individual panel meetings, an open meeting of the Recreation Advisory Council, and a final session addressed by President Johnson. All meetings were held in the auditoriums of the State Department and the Civil Service Commission except for the last, which was held in the East Room of the White House.

The conference was attended by some 800 delegates and an additional number of observers. A single consolidated directory of the delegates and other participants is presented in an appendix to this volume.

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CHAPTER 1

THE CONFERENCE CALL

*(Message from the President of the United States to the Congress,
February 8, 1965)*

For centuries Americans have drawn strength and inspiration from the beauty of our country. It would be a neglectful generation indeed, indifferent alike to the judgment of history and the command of principle, which failed to preserve and extend such a heritage for its descendants.

Yet the storm of modern change is threatening to blight and diminish in a few decades what has been cherished and protected for generations.

A growing population is swallowing up areas of natural beauty with its demands for living space, and is placing increased demand on our overburdened areas of recreation and pleasure.

The increasing tempo of urbanization and growth is already depriving many Americans of the right to live in decent surroundings. More of our people are crowding into cities and being cut off from nature. Cities themselves reach out into the countryside, destroying streams and trees and meadows as they go. A modern highway may wipe out the equivalent of a 50-acre park with every mile. And people move out from the city to get closer to nature only to find that nature has moved farther from them.

The modern technology which has added much to our lives can also have a darker side. Its uncontrolled waste products are menacing the world we live in, our enjoyment and our health. The air we breathe, our water, our soil and wildlife, are being blighted by the poisons and chemicals which are the byproducts of technology and industry. The skeletons of discarded cars litter the countryside. The same society which receives the rewards of technology, must, as a cooperating whole, take responsibility for control.

To deal with these new problems will require a new conservation. We must not only protect the countryside and save it from destruc-

tion, we must restore what has been destroyed and salvage the beauty and charm of our cities. Our conservation must be not just the classic conservation of protection and development, but a creative conservation of restoration and innovation. Its concern is not with nature alone, but with the total relation between man and the world around him. Its object is not just man's welfare, but the dignity of man's spirit.

In this conservation the protection and enhancement of man's opportunity to be in contact with beauty must play a major role.

This means that beauty must not be just a holiday treat, but a part of our daily life. It means not just easy physical access, but equal social access for rich and poor, Negro and white, city dweller and farmer.

Beauty is not an easy thing to measure. It does not show up in the gross national product, in a weekly paycheck, or in profit and loss statements. But these things are not ends in themselves. They are a road to satisfaction and pleasure and the good life. Beauty makes its own direct contribution to these final ends. Therefore it is one of the most important components of our true national income, not to be left out simply because statisticians cannot calculate its worth.

And some things we do know. Association with beauty can enlarge man's imagination and revive his spirit. Ugliness can demean the people who live among it. What a citizen sees every day is his America. If it is attractive it adds to the quality of his life. If it is ugly it can degrade his existence.

Beauty has other immediate values. It adds to safety whether removing direct dangers to health or making highways less monotonous and dangerous. We also know that those who live in blighted and squalid conditions are more susceptible to anxieties and mental disease.

Ugliness is costly. It can be expensive to clean a soot-smearred building, or to build new areas of recreation when the old landscape could have been preserved far more cheaply.

Certainly no one would hazard a national definition of beauty. But we do know that nature is nearly always beautiful. We do, for the most part, know what is ugly. And we can introduce, into all our planning, our programs, our building, and our growth, a conscious and active concern for the values of beauty. If we do this then we can be successful in preserving a beautiful America.

There is much the Federal Government can do, through a range of specific programs, and as a force for public education. But a beautiful America will require the effort of government at every level, of business, and of private groups. Above all it will require the concern and action of individual citizens, alert to danger, determined to improve the quality of their surroundings, resisting blight, demanding and building beauty for themselves and their children.

I am hopeful that we can summon such a national effort. For we have not chosen to have an ugly America. We have been careless, and often neglectful. But now that the danger is clear and the hour is late this people can place themselves in the path of a tide of blight which is often irreversible and always destructive.

The Congress and the executive branch have each produced conservation giants in the past. During the 88th Congress it was legislative-executive teamwork that brought progress. It is this same kind of partnership that will insure our continued progress.

In that spirit as a beginning and stimulus I make the following proposals:

The Cities

Thomas Jefferson wrote that communities should be planned with an eye to the effect made upon the human spirit by being continually surrounded with a maximum of beauty.

We have often sadly neglected this advice in the modern American city. Yet this is where most of our people live. It is where the character of our young is formed. It is where American civilization will be increasingly concentrated in years to come.

Such a challenge will not be met with a few more parks or playgrounds. It requires attention to the architecture of building, the structure of our roads, preservation of historical buildings and monuments, careful planning of new suburbs. A concern for the enhancement of beauty must infuse every aspect of the growth and development of metropolitan areas. It must be a principal responsibility of local government, supported by active and concerned citizens.

Federal assistance can be a valuable stimulus and help to such local efforts.

I have recommended a community extension program which will bring the resources of the university to focus on problems of the community just as they have long been concerned with our rural areas. Among other things, this program will help provide training

and technical assistance to aid in making our communities more attractive and vital. In addition, under the Housing Act of 1964, grants will be made to States for training of local governmental employees needed for community development. I am recommending a 1965 supplemental appropriation to implement this program.

We now have two programs which can be of special help in creating areas of recreation and beauty for our metropolitan area population: the open space land program and the land and water conservation fund.

I have already proposed full funding of the land and water conservation fund, and directed the Secretary of the Interior to give priority attention to serving the needs of our growing urban population.

The primary purpose of the open space program has been to help acquire and assure open spaces in urban areas. I propose a series of new matching grants for improving the natural beauty of urban open space.

The open space program should be adequately financed, and broadened by permitting grants to be made to help city governments acquire and clear areas to create small parks, squares, pedestrian malls, and playgrounds.

In addition I will request authority in this program for a matching program to cities for landscaping, installation of outdoor lights and benches, creating attractive cityscapes along roads and in business areas, and for other beautification purposes.

Our city parks have not, in many cases, realized their full potential as sources of pleasure and play. I recommend on a matching basis a series of Federal demonstration projects in city parks to use the best thought and action to show how the appearance of these parks can better serve the people of our towns and metropolitan areas.

All of these programs should be operated on the same matching formula to avoid unnecessary competition among programs and increase the possibility of cooperative effort. I will propose such a standard formula.

In a future message on the cities I will recommend other changes in our housing programs designed to strengthen the sense of community of which natural beauty is an important component.

In almost every part of the country citizens are rallying to save landmarks of beauty and history. The government must also do its share to assist these local efforts which have an important national purpose. We will encourage and support the National Trust for

Historic Preservation in the United States, chartered by Congress in 1949. I shall propose legislation to authorize supplementary grants to help local authorities acquire, develop, and manage private properties for such purposes.

The Registry of National Historic Landmarks is a fine Federal program with virtually no Federal cost. I commend its work and the new wave of interest it has evoked in historical preservation.

The Countryside

Our present system of parks, seashores, and recreation areas—monuments to the dedication and labor of farsighted men—do not meet the needs of a growing population.

The full funding of the Land and Water Conservation Fund will be an important step in making this a Parks-for-America decade.

I propose to use this fund to acquire lands needed to establish—

Assateague Island National Seashore, Md.-Va.

Tocks Island National Recreation Area, N.J.-Pa.

Cape Lookout National Seashore, N.C.

Sleeping Bear Dunes National Lakeshore, Mich.

Indiana Dunes National Lakeshore, Ind.

Oregon Dunes National Seashore, Oreg.

Great Basin National Park, Nev.

Guadalupe Mountains National Park, Tex.

Spruce Knob, Seneca Rocks National Recreation Area, W. Va.

Bighorn Canyon National Recreation Area, Mont.-Wyo.

Flaming Gorge National Recreation Area, Utah-Wyo.

Whiskeytown-Shasta-Trinity National Recreation Area, Calif.

In addition, I have requested the Secretary of the Interior, working with interested groups, to conduct a study on the desirability of establishing a Redwoods National Park in California.

I will also recommend that we add prime outdoor recreation areas to our national forest system, particularly in the populous East; and proceed on schedule with studies required to define and enlarge the Wilderness System established by the 88th Congress. We will also continue progress on our refuge system for migratory waterfowl.

Faulty strip and surface mining practices have left ugly scars which mar the beauty of the landscape in many of our States. I urge your strong support of the nationwide strip and surface mining study provided by the Appalachian regional legislation, which will furnish the

factual basis for a fair and reasonable approach to the correction of these past errors.

I am asking the Secretary of Agriculture to work with State and local organizations in developing a cooperative program for improving the beauty of the privately owned rural lands which comprise three-fourths of the Nation's area. Much can be done within existing Department of Agriculture programs without adding to cost.

The 28 million acres of land presently held and used by our armed services is an important part of our public estate. Many thousands of these acres will soon become surplus to military needs. Much of this land has great potential for outdoor recreation, wildlife, and conservation uses consistent with military requirements. This potential must be realized through the fullest application of multiple-use principles. To this end I have directed the Secretaries of Defense and Interior to conduct a "conservation inventory" of all surplus lands.

Highways

More than any country ours is an automobile society. For most Americans the automobile is a principal instrument of transportation, work, daily activity, recreation, and pleasure. By making our roads highways to the enjoyment of nature and beauty we can greatly enrich the lives of nearly all our people in city and countryside alike.

Our task is twofold. First, to insure that roads themselves are not destructive of nature and natural beauty. Second, to make our roads ways to recreation and pleasure.

I have asked the Secretary of Commerce to take a series of steps designed to meet this objective. This includes requiring landscaping on all Federal interstate primary and urban highways, encouraging the construction of rest and recreation areas along highways, and the preservation of natural beauty adjacent to highway rights-of-way.

Our present highway law permits the use of up to 3 percent of all Federal-aid funds to be used without matching for the preservation of natural beauty. This authority has not been used for the purpose intended by Congress. I will take steps, including recommended legislation if necessary, to make sure these funds are, in fact, used to enhance beauty along our highway system. This will dedicate substantial resources to this purpose.

I will also recommend that a portion of the funds now used for secondary roads be set aside in order to provide access to areas of

rest and recreation and scenic beauty along our Nation's roads, and for rerouting or construction of highways for scenic or parkway purposes.

The Recreation Advisory Council is now completing a study of the role which scenic roads and parkways should play in meeting our highway and recreation needs. After receiving the report, I will make appropriate recommendations.

The authority for the existing program of outdoor advertising control expires on June 30, 1965, and its provisions have not been effective in achieving the desired goal. Accordingly, I will recommend legislation to insure effective control of billboards along our highways.

In addition, we need urgently to work toward the elimination or screening of unsightly, beauty-destroying junkyards and auto graveyards along our highways. To this end, I will also recommend necessary legislation to achieve effective control, including Federal assistance in appropriate cases where necessary.

I hope that, at all levels of government, our planners and builders will remember that highway beautification is more than a matter of planting trees or setting aside scenic areas. The roads themselves must reflect, in location and design, increased respect for the natural and social integrity and unity of the landscape and communities through which they pass.

Rivers

Those who first settled this continent found much to marvel at. Nothing was a greater source of wonder and amazement than the power and majesty of American rivers. They occupy a central place in myth and legend, folklore and literature.

They were our first highways, and some remain among the most important. We have had to control their ravages, harness their power, and use their water to help make whole regions prosper.

Yet even this seemingly indestructible natural resource is in danger.

Through our pollution control programs we can do much to restore our rivers. We will continue to conserve the water and power for tomorrow's needs with well-planned reservoirs and power dams. But the time has also come to identify and preserve free-flowing stretches of our great scenic rivers before growth and development make the beauty of the unspoiled waterway a memory.

To this end I will shortly send to Congress a bill to establish a national wild rivers system.

The Potomac

The river rich in history and memory which flows by our Nation's Capital should serve as a model of scenic and recreation values for the entire country. To meet this objective I am asking the Secretary of the Interior to review the Potomac River Basin development plan now under review by the Chief of Army Engineers, and to work with the affected States and local governments, the District of Columbia, and interested Federal agencies to prepare a program for my consideration.

A program must be devised which will—

(a) Clean up the river and keep it clean, so it can be used for boating, swimming, and fishing;

(b) Protect its natural beauties by the acquisition of scenic easements, zoning, or other measures;

(c) Provide adequate recreational facilities; and

(d) Complete the presently authorized George Washington Memorial Parkway on both banks.

I hope action here will stimulate and inspire similar efforts by State and local governments on other urban rivers and waterfronts, such as the Hudson in New York. They are potentially the greatest single source of pleasure for those who live in most of our metropolitan areas.

Trails

The forgotten outdoorsmen of today are those who like to walk, hike, ride horseback, or bicycle. For them we must have trails as well as highways. Nor should motor vehicles be permitted to tyrannize the more leisurely human traffic.

Old and young alike can participate. Our doctors recommend and encourage such activity for fitness and fun.

I am requesting, therefore, that the Secretary of the Interior work with his colleagues in the Federal Government and with State and local leaders and recommend to me a cooperative program to encourage a national system of trails, building up the more than hundred thousand miles of trails in our national forests and parks.

There are many new and exciting trail projects underway across the land. In Arizona, a county has arranged for miles of irrigation canal banks to be used by riders and hikers. In Illinois, an aban-

doned railroad right-of-way is being developed as a "Prairie Path." In Mexico utility rights-of-way are used as public trails.

As with so much of our quest for beauty and quality, each community has opportunities for action. We can and should have an abundance of trails for walking, cycling, and horseback riding, in and close to our cities. In the back country we need to copy the great Appalachian Trail in all parts of America, and to make full use of rights-of-way and other public paths.

Pollution

One aspect of the advance of civilization is the evolution of responsibility for disposal of waste. Over many generations society gradually developed techniques for this purpose. State and local governments, landlords and private citizens have been held responsible for insuring that sewage and garbage did not menace health or contaminate the environment.

In the last few decades entire new categories of waste have come to plague and menace the American scene. These are the technological wastes—the byproducts of growth, industry, agriculture, and science. We cannot wait for slow evolution over generations to deal with them.

Pollution is growing at a rapid rate. Some pollutants are known to be harmful to health, while the effect of others is uncertain and unknown. In some cases we can control pollution with a larger effort. For other forms of pollution we still do not have effective means of control.

Pollution destroys beauty and menaces health. It cuts down on efficiency, reduces property values, and raises taxes.

The longer we wait to act, the greater the dangers and the larger the problem.

Large-scale pollution of air and waterways is no respecter of political boundaries, and its effects extend far beyond those who cause it.

Air pollution is no longer confined to isolated places. This generation has altered the composition of the atmosphere on a global scale through radioactive materials and a steady increase in carbon dioxide from the burning of fossil fuels. Entire regional airsheds, crop plant environments, and river basins are heavy with noxious materials. Motor vehicles and home heating plants, municipal dumps, and factories continually hurl pollutants into the air we breathe. Each

day almost 50,000 tons of unpleasant, and sometimes poisonous, sulfur dioxide are added to the atmosphere, and our automobiles produce almost 300,000 tons of other pollutants.

In Donora, Pa., in 1948, and New York City in 1953, serious illness and some deaths were produced by sharp increases in air pollution. In New Orleans, epidemic outbreaks of asthmatic attacks are associated with air pollutants. Three-fourths of the 8 million people in the Los Angeles area are annoyed by severe eye irritation much of the year. And our health authorities are increasingly concerned with the damaging effects of the continual breathing of polluted air by all our people in every city in the country.

In addition to its health effects, air pollution creates filth and gloom and depreciates property values of entire neighborhoods. The White House itself is being dirtied with soot from polluted air.

Every major river system is now polluted. Waterways that were once sources of pleasure and beauty and recreation are forbidden to human contact and objectionable to sight and smell. Furthermore, this pollution is costly, requiring expensive treatment for drinking water and inhibiting the operation and growth of industry.

In spite of the efforts and many accomplishments of the past, water pollution is spreading. And new kinds of problems are being added to the old:

Waterborne viruses, particularly hepatitis, are replacing typhoid fever as a significant health hazard.

Mass deaths of fish have occurred in rivers overburdened with wastes.

Some of our rivers contain chemicals which, in concentrated form, produce abnormalities in animals.

Last summer 2,600 square miles of Lake Erie—over a quarter of the entire lake—were almost without oxygen and unable to support life because of algae and plant growths, fed by pollution from cities and farms.

In many older cities storm drains and sanitary sewers are interconnected. As a result, mixtures of storm water and sanitary waste overflow during rains and discharge directly into streams, bypassing treatment works and causing heavy pollution.

In addition to our air and water we must, each and every day, dispose of a half billion pounds of solid waste. These wastes—from discarded cans to discarded automobiles—litter our country, harbor

vermin, and menace our health. Inefficient and improper methods of disposal increase pollution of our air and streams.

Almost all these wastes and pollutions are the result of activities carried on for the benefit of man. A prime national goal must be an environment that is pleasing to the senses and healthy to live in.

Our Government is already doing much in this field. We have made significant progress. But more must be done.

Federal Government activity

I am directing the heads of all agencies to improve measures to abate pollution by direct agency operation, contracts and cooperative agreements. Federal procurement practices must make sure that the Government equipment uses the most effective techniques for controlling pollution. The Administrator of General Services has already taken steps to assure that motor vehicles purchased by the Federal Government meet minimum standards of exhaust quality.

Clean water

Enforcement authority must be strengthened to provide positive controls over the discharge of pollutants into our interstate or navigable waters. I recommend enactment of legislation to—

Provide, through the setting of effective water quality standards, combined with a swift and effective enforcement procedure, a national program to prevent water pollution at its source rather than attempting to cure pollution after it occurs.

Increase project grant ceilings and provide additional incentives for multimunicipal projects under the waste-treatment facilities construction program.

Increase the ceilings for grants to State water pollution control programs.

Provide a new research and demonstration construction program leading to the solution of problems caused by the mixing of storm water runoff and sanitary wastes.

The Secretary of Health, Education, and Welfare will undertake an intensive program to clean up the Nation's most polluted rivers. With the cooperation of States and cities—using the tools of regulation, grant, and incentives—we can bring the most serious problem of river pollution under control. We cannot afford to do less.

We will work with Canada to develop a pollution control program for the Great Lakes and other border waters.

Through an expanded program carried on by the Departments of Health, Education, and Welfare and Interior, we will continue to seek effective and economical methods for controlling pollution from acid mine drainage.

To improve the quality of our waters will require the fullest cooperation of our State and local governments. Working together, we can and will preserve and increase one of our most valuable national resources—clean water.

Clean air

The enactment of the Clean Air Act in December of 1963 represented a long step forward in our ability to understand and control the difficult problem of air pollution. The 1966 budget request of \$24 million is almost double the amount spent on air pollution programs in the year prior to its enactment.

In addition, the Clean Air Act should be improved to permit the Secretary of Health, Education, and Welfare to investigate potential air pollution problems before pollution happens, rather than having to wait until the damage occurs, as is now the case, and to make recommendations leading to the prevention of such pollution.

One of the principal unchecked sources of air pollution is the automobile. I intend to institute discussions with industry officials and other interested groups leading to an effective elimination or substantial reduction of pollution from liquid-fueled motor vehicles.

Solid wastes

Continuing technological progress and improvement in methods of manufacture, packaging, and marketing of consumer products have resulted in an ever-mounting increase of discarded material. We need to seek better solutions to the disposal of these wastes. I recommend legislation to—

Assist the States in developing comprehensive programs for some forms of solid waste disposal.

Provide for research and demonstration projects leading to more effective methods for disposing of or salvaging solid wastes.

Launch a concentrated attack on the accumulation of junk cars by increasing research in the Department of Interior leading to use of metal from scrap cars where promising leads already exist.

Pesticides

Pesticides may affect living organisms wherever they occur.

In order that we may better understand the effects of these compounds, I have included increased funds in the budget for use by the Secretaries of Agriculture, Interior, and Health, Education, and Welfare to increase their research efforts on pesticides so they can give special attention to the flow of pesticides through the environment; study the means by which pesticides break down and disappear in nature; and to keep a constant check on the level of pesticides in our water, air, soil, and food supply.

I am recommending additional funds for the Secretary of Agriculture to reduce contamination from toxic chemicals through intensified research, regulatory control, and educational programs.

The Secretary of Agriculture will soon submit legislation to tighten control over the manufacture and use of agricultural chemicals, including licensing and factory inspection of manufacturers, clearly placing the burden of proof of safety on the proponent of the chemical rather than on the Government.

Research resources

Our needs for new knowledge and increasing application of existing knowledge demand a greater supply of trained manpower and research resources.

A National Center for Environmental Health Sciences is being planned as a focal point for health research in this field. In addition, the 1966 budget includes funds for the establishment of university institutes to conduct research and training in environmental pollution problems.

Legislation recommended in my message on health has been introduced to increase Federal support for specialized research facilities of a national or regional character. This proposal, aimed at health research needs generally, would assist in the solution of environmental health problems and I urge its passage.

We need legislation to provide to the Departments of Agriculture and Interior authority for grants for research in environmental pollution control in their areas of responsibility. I have asked the Secretary of Interior to submit legislation to eliminate the ceiling on pesticide research.

Other efforts

In addition to these needed actions, other proposals are undergoing active study.

I have directed the Chairman of the Council of Economic Advisers, with the appropriate departments, to study the use of economic incentives as a technique to stimulate pollution prevention and abatement, and to recommend actions or legislation, if needed.

I have instructed the Director of the Bureau of the Budget and the Director of the Office of Science and Technology to explore the adequacy of the present organization of pollution control and research activities.

I have also asked the Director of the Office of Science and Technology and the Director of the Bureau of the Budget to recommend the best way in which the Federal Government may direct efforts toward advancing our scientific understanding of natural plant and animal communities and their interaction with man and his activities.

The actions and proposals recommended in this message will take us a long way toward immediate reversal of the increase of pollutants in our environment. They will also give us time until new basic knowledge and trained manpower provide opportunities for more dramatic gains in the future.

White House Conference

I intend to call a White House Conference on Natural Beauty to meet in mid-May of this year. Its chairman will be Mr. Laurance Rockefeller.

It is my hope that this conference will produce new ideas and approaches for enhancing the beauty of America. Its scope will not be restricted to Federal action. It will look for ways to help and encourage State and local governments, institutions, and private citizens in their own efforts. It can serve as a focal point for the large campaign of public education which is needed to alert Americans to the danger to their natural heritage and to the need for action.

In addition to other subjects which this conference will consider, I recommend the following subjects for discussion in depth:

Automobile junkyards: I am convinced that analysis of the technology and economics can help produce a creative solution to this vexing problem. The Bureau of Mines of the Interior Department can contribute technical advice to the conference, as can the scrap industry and the steel industry.

Underground installation of utility transmission lines: Further research is badly needed to enable us to cope with this problem.

The greatest single force that shapes the American landscape is private economic development. Our taxation policies should not penalize or discourage conservation and the preservation of beauty.

Ways in which the Federal Government can, through information and technical assistance, help communities and States in their own programs of natural beauty.

The possibilities of a national tree-planting program carried on by government at every level, and private groups and citizens.

Conclusion

In my 33 years of public life I have seen the American system move to conserve the natural and human resources of our land.

TVA transformed an entire region that was "depressed." The rural electrification cooperatives brought electricity to lighten the burdens of rural America. We have seen the forests replanted by the CCC's, and watched Gifford Pinchot's sustained-yield concept take hold on forest lands.

It is true that we have often been careless with our natural bounty. At times we have paid a heavy price for this neglect. But once our people were aroused to the danger, we have acted to preserve our resources for the enrichment of our country and the enjoyment of future generations.

The beauty of our land is a natural resource. Its preservation is linked to the inner prosperity of the human spirit.

The tradition of our past is equal to today's threat to that beauty. Our land will be attractive tomorrow only if we organize for action and rebuild and reclaim the beauty we inherited. Our stewardship will be judged by the foresight with which we carry out these programs. We must rescue our cities and countryside from blight with the same purpose and vigor with which, in other areas, we moved to save the forests and the soil.

LYNDON B. JOHNSON.

THE WHITE HOUSE, *February 8, 1965.*

CHAPTER 2

THE GENERAL SESSION

9:30 a.m., Monday, May 24

Mrs. LYNDON B. JOHNSON. Welcome to the White House Conference on Natural Beauty.

We are grateful that you have taken two days of your busy lives to come here and discuss ways to restore and increase the beauty of our land.

In the catalogue of ills which afflicts mankind, ugliness and the decay of our cities and countryside are high on America's agenda.

It seems to me that one of the most pressing challenges for the individual is the depression and the tension resulting from existence in a world which is increasingly less pleasing to the eye. Our peace of mind, our emotions, our spirit—even our souls—are conditioned by what our eyes see.

Ugliness is bitterness. We are all here to try and change that. This conference is a step towards the solution and I think a great one.

Our immediate problem is: How can one best fight ugliness in a nation such as ours—where there is great freedom of action or inaction for every individual and every interest—where there is virtually no artistic control—and where all action must originate with the single citizen or group of citizens?

That is the immediate problem and challenge. Most of the great cities and great works of beauty of the past were built by autocratic societies. The Caesars built Rome. Paris represents the will of the Kings of France and the Empire. Vienna is the handiwork of the Hapsburgs, and Florence of the Medici.

Can a great democratic society generate the concerted drive to plan, and having planned, to execute great projects of beauty?

I not only hope so—I am certain that it can.

All our national history proves that a committed citizenry is a mighty force when it bends itself to a determined effort. There

is a growing feeling in this land today that ugliness has been allowed too long, that it is time to say "Enough," and to act.

During these two days you will discuss and originate plans and projects both great and small. Great must be the scope of the major projects to redesign our urban areas, renew and brighten the gateways to our cities, cleanse, set in order and dignify our riverfronts and our ports. Small, but equally important—perhaps most important—is the single citizen who plants a tree or tends his own front yard. There are 190 million of him. He is everybody.

Perhaps the most important part of this conference will be to help educate our people that the beauty of their land depends upon their own initiative and their will.

I have heard said—and many times—that among our greatest ills is the deep sense of frustration which the individual feels when he faces the complex and large problems of our century. Ugliness is not that sort of problem. Its vast scope will call for much coordination on the highest levels. But—and this is the blessing of it—it is one problem which every man and woman and child can attack and contribute to defeating. Natural beauty may be a national concern and there is much that government can and should do, but it is the individual who not only benefits, but who must protect a heritage of beauty for future generations.

There are no autocrats in our land to decree beauty, only a national will. Through your work, I firmly believe this national will can be given energy and force, and produce a more beautiful America.

The Conference Chairman, LAURANCE S. ROCKEFELLER. In calling us together, President Johnson set the tone for our endeavor. He said: I want new ideas. He said: I want to alert the American people to action. He cited concrete, specific problems for us to consider—not abstractions or theories.

In accordance with the President's directive, this conference is organized for action. It is not for philosophizing. As Mrs. Johnson said at the first meeting of her committee to beautify Washington, "We must not substitute the delight of debate for the art of action."

This is not to say that a social and moral basis for natural beauty is unnecessary. It is rather to say that we have such a foundation.

President Johnson has already affirmed it.

The people of this country, he has said, want not only a bigger America but a better and more beautiful America as well.

He knows they are concerned about the kind of country they are building for themselves and their children.

He knows they are ready to support sound, economical, and imaginative programs to bring about this kind of America.

In his natural beauty message, the President summed up the challenge:

The beauty of our land is a natural resource. Its preservation is linked to the inner prosperity of the human spirit.

The tradition of our past is equal to today's threat to that beauty. Our land will be attractive tomorrow only if we organize for action and rebuild and reclaim the beauty we inherited. Our stewardship will be judged by the foresight with which we carry out these programs. We must rescue our cities and countryside from blight with the same purpose and vigor with which, in other areas, we moved to save the forests and the soil.

I suggest that this conference accept this commitment as its theme.

We propose this sweeping premise not only because of the President's vision but because the people in the cities and towns across our land have made it clear that they want a better environment. Now as never before they are ready to work for it.

In a different sense, beauty is its own justification. As Emerson said "If eyes were made for seeing, beauty is its own excuse for being."

Most of us would agree. Certainly the President does. His personal concern for natural beauty is real and effective.

Thus, with his leadership and statement of purpose, we have a clear national goal.

Our task is to produce specific ideas and come up with solutions that will lead us toward these goals.

That is why the panel topics we will be considering are not abstractions or exercises in theory. They are hard, real issues. In selecting these issues, three major areas of concern evolved—the city, the countryside, and the highways. Under each theme there is a series of panels on specific problems.

We found that the things that needed the most attention were those close to people—physically as well as emotionally. In seeking to translate people's yearning for natural beauty into practical programs, the primary challenge is the environment where most people live and work—our cities and the suburbs and countryside around them.

There is a fourth general theme concerned with ways and means of doing the job. This includes citizen action, government action, and education.

I personally feel that in the long run education may be one of the most important of all. If succeeding generations of Americans are to know the meaning and beauty of nature, most of them, unhappily, must be taught in classrooms. They must have as much opportunity as possible to live and to experience beauty in their formal education.

There are no panels on such elements of beauty as national parks and forests or wilderness. They are so obviously important that the point need not be belabored. They should have our continuing support, but we believe that this conference should concentrate on new ideas that have not received as much attention as they should.

We have also not specifically included water and air pollution control. Perhaps no problems are more important to the quality of environment and to our general health and well-being, but there are established research and action programs in this field. They need to be improved but we can affirm our strong support for pollution control and move on.

In choosing panelists, we chose the individual, not the office. We sought a cross section of varying points of view. There are people from business and labor and the farms. There are interested citizens and government officials and conservationists. We are particularly pleased that some of the most distinguished members of the Congress have agreed to work with us on the panels. We are also grateful that several outstanding foreign authorities have come to work with us.

It might also be noted that those in the audience who are not on the panels are well qualified to serve. Indeed, most if not all of you were nominated to be on them. We want the benefit of your counsel. Half of each panel session will be devoted to your questions and recommendations.

Tomorrow afternoon we have the unique opportunity to give the President some new and important ideas. We can meet this challenge only by being bold and imaginative in concept and practical and sound in application.

I am sure that we agree that the following conclusions are basic to every panel:

Yes, more research is needed.

Yes, better coordination is needed.

Yes, more money for present programs is needed.

All are indeed essential, but let's accept that truth and concentrate on new ideas.

This is our charge for the next two days—new, practical ideas for solving specific problems.

Now, before we get to work in our panels, I would like to take a few minutes to emphasize three points about the urgency and importance of what we are doing.

The first is that natural beauty must be an integral part of our national life. It cannot be a frill or afterthought or a luxury subject to the red pencil of accountants, public or private. It must be a vital part of the way we build our country.

Over the next 40 years we are going to rebuild this country. We will build as many houses as we have since this country was first settled. We will build enough offices and factories to create at least one and a half million new jobs each year. We will complete and expand our network of interstate highways and rebuild our system of secondary roads.

In doing all this, we must provide as much open space and parkland as is possible. But the concrete that is poured and the steel that is raised will have a far greater effect on our environment than the land we can hope to save or restore.

How we build our factories, how we create our next generation of suburbs, how we build our great highway system will determine in large measure how beautiful an America we will create for our children and grandchildren.

The second point is that natural beauty is basic to the spiritual side of our national life. How we treat our land, how we build upon it, how we act toward our air and water will in the long run tell what kind of people we really are.

Conservation, outdoor recreation, physical fitness, and environmental health are all directly involved. Culture and education are as well.

Natural beauty, in short, is one of the very important expressions of national character.

The perception of beauty, Thoreau said, is a moral test. I suggest that perception of beauty and action to preserve and create it are a fundamental test of a great society.

The third point is that natural beauty greatly influences the quality of the individual lives we lead.

When Americans turn down the street where they live, there can be cleanliness and touches of green no matter how pretentious or how humble the home or there can be decay and neglect and depression.

When Americans arrive at their work, whether it be the White House or a mill, there can be touches of beauty or there can be grime and dirt and spirit-deadening indifference.

When Americans drive along our roads and highways, there can be pleasing vistas and attractive roadside scenes or there can be endless corridors walled in by neon, junk, and ruined landscape.

When Americans seek the countryside, there can be pleasing landscapes, healthy air and water and places of beauty or there can be a wasteland of gravel pits, overgrown fields, and places of refuse rather than refuge.

These are the choices. For the next 36 hours we in this room have a unique opportunity to help direct the choices.

We cannot solve all the problems of creating a beautiful America in these hours, but we can take a big step—perhaps many steps—in that direction.

Tomorrow we report directly to the President of the United States, and we also report to the people of the United States. There is every reason to believe that they are eager to follow up on any recommendation.

Therefore, let us now go to work.

CHAPTER 3

THE RECREATION ADVISORY COUNCIL

9 a.m., Tuesday, May 25

An open meeting of the Recreation Advisory Council was held as part of the White House Conference on Natural Beauty. Council members present were the Secretary of the Interior, the Hon. Stewart L. Udall; the Secretary of Agriculture and Chairman of the Council, the Hon. Orville L. Freeman; the Secretary of Commerce, the Hon. John T. Connor; the Secretary of Health, Education, and Welfare, the Hon. Anthony J. Celebrezze; the Administrator, Housing and Home Finance Agency, the Hon. Robert J. Weaver, and the Chairman of the Tennessee Valley Authority, the Hon. Aubrey J. Wagner. Representing the Secretary of Defense was the Assistant Secretary for Manpower, the Hon. Norman S. Paul. The Chairman of the Council staff, Dr. Edward C. Crafts, Director of the Bureau of Outdoor Recreation was also present.

Mr. Freeman presided at the meeting and was introduced by the chairman of the conference. Mr. Rockefeller expressed the conference's appreciation for the Council's participation and thanked its members for their help in planning and organizing the conference.

The Chairman, Secretary FREEMAN. May I say to you that the Recreation Advisory Council is pleased to be here. Before the question and answer session I would like briefly to report to you on behalf of my fellow members in this Council why it was first established, how it functions, its accomplishments in its first three years and its objectives.

The Recreation Advisory Council was established in response to a recommendation made by the Outdoor Recreation Resources Review Commission. Upon finding that there are approximately 30 Federal agencies with responsibilities and activities related to outdoor recreation, the Commission—under the leadership of Laurance S.

Rockefeller—wisely recognized the need to give balance and direction to all Federal activities influencing enjoyment of the outdoors, and the need to provide for maximum coordination of these activities. So it has become the function of the Council to serve as a balance wheel, a direction finder, a coordinator.

Each department represented on the Council has specific, primary assignments for which it is responsible to the Congress and the President. Yet, in carrying out basic missions, each department becomes involved in one or more aspects of outdoor recreation and—simultaneously—natural beauty.

The Department of Agriculture's primary responsibility rests in the agricultural economy and the related consumer protections, yet its activities in these areas involve resource conservation and land management, watershed protection and tree plantings, and rural development efforts that contribute to expanded outdoor recreation opportunities. Closely associated with recreation and beauty on public lands is the Department's Forest Service, while its Soil Conservation Service has a similar role related to private lands.

The Tennessee Valley Authority is recognized as a source of electric power and fertilizers, yet its influence on the recreational resources and beauty of the landscape in its region is almost beyond measurement.

Access to outdoor recreation and natural beauty are aspects of Department of Commerce public roads policy that range far beyond the commercial and convenience aspects of highway construction.

The Department of Defense, through the Army Corps of Engineers, adds to our recreational resources and influences restoration and maintenance of natural beauty through the development of reservoirs which have the basic purpose of preventing floods and creating electric power.

The Housing and Home Finance Agency is concerned with the environment of housing as well as the quality of homes, and expresses this concern in the planning and preservation of open spaces in development areas.

The Department of Health, Education, and Welfare, by battling pollution of water and air, makes what we see more beautiful and what we drink and breathe more pure.

And no agency of Federal Government is more intimately identified with recreation and natural beauty on a day-to-day operating basis than the Department of the Interior.

And so it goes—across the entire range of departmental responsibilities. Each department, while carrying out its primary function, has roles related to outdoor recreation and the beauty of our environment. These roles, representing an integral part of their ongoing programs, are not the type that can be scooped up into a single shovel and poured into a new agency of government.

The idea of creating a Czar of Natural Beauty and Outdoor Life has academic attraction but—in my judgment—is neither practically nor politically feasible. Yet, it is obvious that coordinated planning, performance, and direction among Federal agencies—and between Federal and State governments—is vital to the immediate and long-range goals of this conference and our Nation.

As a practical matter, we need to find increasingly better means through which each department can supplement—even accelerate—efforts of the others in the field of beauty and outdoor recreation, while at the same time recognizing that each great department must respond to its assignments as established by Congress.

The Recreation Advisory Council was established with that purpose in mind. Whether it is meeting the purpose, whether it needs strengthening in policy and performance, are topics this conference may well wish to take under consideration.

Let us take a look at the record. It contains, I believe, some positive and progressive chapters.

The Recreation Advisory Council has:

1. Adopted a policy statement calling for the establishment of a limited number of National Recreation Areas. Binding upon member agencies, this policy specified criteria for selection of these areas and agreed they would be established only by Act of Congress. The Council further agreed to consider individual proposals, and to recommend appropriate action for establishment, priority, and jurisdictional responsibility.

2. The Council has adopted general policy guidelines for outdoor recreation which give high priority to preparation of a nationwide plan and cover the Council's views of the roles of Federal, State and local governments and the private sector.

3. The Council has issued a policy statement on the water pollution and public health aspects of outdoor recreation.

4. It has recommended development of a national program for scenic roads and parkways.

The Recreation Advisory Council has served as a useful forum for airing and adjusting overlapping and conflicting jurisdictional problems.

1. In line with a recommendation made by the Bureau of Outdoor Recreation, the Council was instrumental in bringing about an agreement on which of two Federal agencies would administer the recreation development of Federal lands surrounding the Allegheny Reservoir in western Pennsylvania. This action provides a precedent for resolving similar situations in the future.

2. The Council considered and concurred in recommendations subsequently made to the President by Secretary Udall and myself related to establishment of the Oregon Dunes National Seashore and establishment of the Whiskeytown-Shasta-Trinity and Flaming Gorge National Recreation Areas; and our recommendation that there be joint examination of Federal lands in the North Cascade Mountains in Washington.

3. The Council also played an important part in implementation of the Land and Water Conservation Fund Act. It has taken three actions: (a) It submitted to the President the Executive Order, which the President subsequently issued, to permit implementation of the Act; (b) It reviewed and concurred in the standards for recreation user fees which were subsequently issued by regulation of the Secretary of the Interior; and (c) It adopted the standard definition of visitor day for reporting recreation use, needed in connection with the allocation of funds for Federal projects under the Act.

4. Further, the Recreation Advisory Council serves as a forum where coordination measures can be reviewed before they are made effective.

In addition, the following achievements merit attention:

1. Since the Council's policy statement, Congress has established the Lake Mead National Recreation Area and Fire Island National Seashore. Establishment of several other national recreation areas is pending. Congress is giving appropriate consideration to the criteria recommended by the Council.

2. In connection with the Federal Water Project Recreation Act, which has passed the Senate and is pending in the House, the House Committee Report directs that definitions approved by the Recreation Advisory Council shall be followed in determining which areas are appropriate for Federal administration under that Act.

3. The Council's recommendation on development of a national

program for scenic roads and parkways is now underway in the Department of Commerce. Completion is expected this summer and it will cover criteria for selection, relative priorities, methods of financing and—probably—legislative proposals.

The Council now has four important studies in progress, which will likely result in policy recommendations. They involve:

1. Procedures for measuring recreation use on Federal lands.
2. Recommendations on the role of the private sector in providing outdoor recreation.
3. Non-Federal management of recreational facilities on Federal lands and waters.
4. Land management responsibilities of Federal agencies at Land and Water Resources projects.

Let me conclude with these observations:

There is a close relationship between the development of outdoor recreation resources and the program outlined by President Johnson in his Natural Beauty Message. I believe the Executive Order establishing the Council gives it implicit duties with respect to natural beauty just as it gives explicit duties in outdoor recreation. If there is any question on this score, the Executive Order should be clarified.

Like any advisory group, the Recreation Advisory Council has its problems—including effective participation by principals, financing, staff services, and gaining acceptance and utilization of its recommendations.

Too, it must establish good relationships with related councils, including the Water Resources Council that would be established by pending legislation now in conference after passing both House and Senate.

The Council has under consideration the creation of a Blue Ribbon Citizen Advisory Committee.

The task before us, if for no other reason than it involves varying jurisdictions—public and private, Federal and State and local—is monumental. At the same time, it represents a truly inspiring challenge.

Recommendations of this conference and how to increase the Council's effectiveness in responding to the challenge will be gratefully received.

Questions and Discussion

Panel chairmen were invited to participate at this point in the meeting. Limitations of time prevented the entertainment of questions from the full conference.

Mr. GODDARD. You talked very briefly to this point, but to emphasize it I would like to ask this question:

Should not the functions of the Recreation Advisory Council be broadened to include natural beauty or quality of environment, rather than being confined to outdoor recreation? Would not it be advisable to amend the Executive Order to make this responsibility with respect to natural beauty explicit rather than implicit?

Secretary FREEMAN. I think that question was directed to me.

I believe natural beauty is implicitly involved within the missions of the various departments and agencies, and also that it is implicitly encompassed in the Executive Order as it now stands. If there is any question about that, I think the Executive Order ought to be amended to make it very clear. It seems to me outdoor recreation and beauty, although not precisely synonymous, are so interrelated that programs should be planned with both very much in mind.

Mr. MOTT. The Recreation Advisory Council has no authority as such. It can only promote coordination. Would it not be desirable to amend the Executive Order to give the Council authority to impose its conclusions or recommendations on the various agencies of the executive branch?

Secretary FREEMAN. I think it is extremely doubtful that the Congress would assign to any council and take away from operating departments the kind of authority implicit in your question. Fundamentally, your question implies the establishment of a new operating department—a department of recreation and natural beauty which would take certain functions from the programs of other departments and set up a new mechanism to perform these functions.

The idea might sound good at first blush, but I think it would prove quite unworkable in actual practice.

Secretary UDALL. I would like to comment on this because I know that is a question on which there is wide interest.

I think I would agree generally with what Senator Gaylord Nelson said yesterday. This job of protecting and restoring the quality

of the American environment, of making it worthy of a country as rich and as prosperous as ours, is a very big undertaking. It is one that will take probably, in my judgment, closer to two decades than one to accomplish and, as he indicated yesterday, many billions of dollars wisely spent.

There may be some who think that the most important thing is some trick of organization. It seems to me that we are going to need more importantly during that period of a decade or two a President who really cares about these things, and I would hope a First Lady, too.

I think you are going to need a sense of crusade in the country. I think you are going to have to have a change in priority, you are going to have to have broad citizen participation and I think we sitting here, who run the Federal departments, are going to have to be deeply involved and care very deeply about it. I think there is going to have to be coordination. I think you are going to have to have ready access to the White House, to the President. I think that we have this at the present time and I think that what we need most of all are the programs and the policies that will implement what obviously is a consensus of this conference that a whole wide range of new action programs are needed. I don't think any simple reorganization that I can think of is going to accomplish nearly as much as the implementation of these new programs.

Mr. WEAVER. I agree with what you have said and what Secretary Udall said. I think that the machinery for operating these various programs is less important than the fact that there is consultation, that there is agreement. I think it is much more effective when this cuts across departments and agencies, when men sit down, as we have been sitting down, and make policy decisions which we all agree are going to be ones that we enforce upon ourselves.

Finally, I think by the very nature of this government, the heads of the departments and agencies have to be responsible to the Congress as well as to the Nation. I don't think that you can delegate the operation of specific programs to any new advisory committee, and I am sure Congress would not permit it anyway.

Mr. WAGNER. I would agree. I would only add that the question seems to imply that beauty is something which can be treated in and of itself apart from ongoing programs. It seems to me that we will do the job that must be done only as each of the operating

agencies consciously builds into its activities an awareness of the need to create rather than to destroy beauty.

I recall—and I think this is part of the ongoing programs—I recall when I first went to the TVA in 1934 the eroding red clay hillsides of the Tennessee Valley were as ugly as they could be. They were restored through the fertilizer plant that Secretary Freeman mentioned, by revitalizing agriculture, by putting corn lands into pasture. And this seems to me to be the way beauty must be achieved. It can't be superimposed as a separate thing on the whole Nation. It must be built into each of our ongoing programs.

Senator Muskie made this point yesterday morning very effectively.

Mr. PAUL. I would like to underline what you said, Mr. Secretary. For example, in our case, we of course have a primarily military mission. But we happen to control 27 million acres of lands in this country which I believe, is roughly the size of New England.

Any means of dissipating the responsibilities away from the Defense officials, such as a military base commander, would be a very bad thing. In fact, I think it would be completely unworkable. I wish to underline what you said.

Secretary CONNOR. A Federal agency, whether it is a council or a separate department, can only do so much in a program of this kind. So much depends upon local participation, and particularly on the authority and programs at the State level. I think, therefore, it would be a mistake to try to centralize all the authority in any one Federal department. I think that the combination of authority that we see among various Federal agencies and also at the State and local levels gives us a most effective mechanism for action.

Secretary FREEMAN. This is not a problem unique to outdoor recreation or beauty.

In the Department of Agriculture, we play a part in implementing the programs of many Federal agencies in rural areas. We must have maximum coordination to get the job done as effectively as possible.

So I will say as I have said before—the thing to do is to establish a goal, and then to keep the attention of people in all echelons within each department focused on the importance of cooperation and coordination.

Mr. HAAR. Our question relates to the chairmanship of the Council. We wonder how effective is this revolving chairmanship? Would it be a better technique to have a permanent chairman, perhaps one appointed by the President directly?

Secretary FREEMAN. There have only been two chairmen so far. I think Secretary Udall was a fine chairman.

Mr. WEAVER. I think it has worked out very well so far. There are advantages in that you get an involvement at the various levels of all departments. You have a feeling that this is not somebody else's business, because one day you are going to be chairman. I think this has operational advantages, and finally, where you are coordinating as this group attempts to do—and coordination is a difficult thing administratively—I think it is very well to have the coordination among people who have equal status rather than coordination by somebody who is going to coordinate.

Secretary CONNOR. Just to amplify that a bit, I think that even a short exposure to government indicates to me that when you have an interdepartmental coordinating agency, that unless you have a rotating chairman, pretty soon the fellow who is the chairman is automatically delegated all the authority with respect to that activity and this becomes the activity of his department with the other departments taking only a peripheral interest in it. Although this is still in the experimental stage, it seems to me that the points Mr. Weaver made are valid, that if all the departments concerned are to be responsible for various aspects of the program it is a good idea to thrust the matter of chairmanship on each one in turn for one go-around and see how it works.

Mr. PAUL. Mr. Chairman, I should say at this point that Secretary McNamara believes in the rotating chairmanship concept, but it is a question of how far it rotates. For example, our feeling at present is that the Department of Defense should not chair the Council. We would like to remove the Secretary of Defense from the primary burden of chairing the Council. We feel we should be on the Council—we have to be. We think that narrowing the potential numbers of chairmen is probably a good idea, but we are all in favor of the rotating principle.

Secretary FREEMAN. I might add a personal note that the Council might want to consider. I think if the President saw fit to assign the top staff person in the field of conservation and natural beauty as the

Chairman of this Council, that this would have some advantages of continuity and a close and intimate relationship with the President.

I think this proposal may be entitled to some consideration and discussion by this conference.

Mr. WEAVER. The issue here is a dual one. That is, whether or not for the first time around, as we are beginning to get organized and operating, there isn't some great advantage in the rotation of the chairmanship. I would agree with Secretary Freeman that once this operation gets underway and is established and some of the rough edges are knocked off, a permanent chairmanship might have some advantages.

Mr. BACON. I wanted to pick up on a statement that Mr. Wagner made about creating and not destroying beauty. My question is addressed to the Council as a body. Do you favor a Federal policy for no further expressway construction in city, State, and national parks?

Secretary FREEMAN. I don't know that anybody can really speak for the Council per se in connection with this, because I don't think that question has ever been actually presented. We can go down the line here.

Secretary UDALL. Maybe we ought to discuss it.

Secretary FREEMAN. Do you suggest we do it right now?

Secretary UDALL. Not right now. As you well know, I am a believer in Executive Sessions for controversial topics.

After the experience that we have had in my department, both with the parks, wildlife refuges, and other outdoor recreation areas, I would be very glad to take the affirmative on that topic in the Council if you want to schedule it for a meeting.

Secretary CONNOR. Mr. Chairman, I think we should just emphasize that this scenic road study which is now underway will be completed and ready for recommendations and actions during the course of the summer. I think the results of that study will have a very important bearing on this question.

I was glad I was up early enough this morning to read the morning paper before coming here and see that my friend Secretary Udall has some plans for scenic roads. I happen to have in my pocket a little proposal that would get us started on this in a modest way on

which we hope to get the approval of the President and submit to Congress soon. This is a topic that deserves very serious consideration, not only in this Council, but in Congress and among other groups.

Mrs. WHITTEMORE. I would like to have discussed the question of a citizens' advisory council.

Would it not be desirable that a small group of leading citizens be appointed by the President and could not its functions be to bring problems to the attention of the Council, to assist the Council in implementing its recommendations, to prod the Council if necessary, and to make the Council a more active and effective instrument reaching out into citizens' groups, keeping them informed and have a two-way line of communication?

Mr. WAGNER. This is a difficult one for me to comment on because in the first place, I think it is extremely important that our actions do reflect what the citizenry wants. At the same time, I find myself a little troubled with the proposal of an advisory council to an advisory council.

It is appropriate to get local prodding and local views and if we find we do not have the machinery in our own several organizations to obtain them adequately then perhaps an advisory council charged with one responsibility and function in this one field would be useful. But again, I think this is a question of how many advisories we should have.

Secretary CONNOR. Mr. Chairman, I would strongly favor a citizens' advisory council. Particularly because of the importance of local and State action in this field, we do need some means of having ready access to the views of citizens who are broadly representative in various parts of the country and various groups. I think it is a good idea and we should give it consideration.*

Mr. PAUL. I think the idea of an advisory committee is a very good one, but I think we ought to give some consideration to its context.

In other words, I don't think it would be useful if it were just advisory to the Recreation Council. But if advisory to the President, it would be worthwhile perhaps in a continuing way on the

* Secretary Connor at this point left the meeting to attend a Congressional hearing.

whole subject of natural beauty. But just as an advisory committee to this Council, I think is too narrow a function.

Secretary UDALL. I would concur with Secretary Paul. I think the really basic question that we face is how does the momentum arising out of this conference, out of the new initiative of the President—how do we keep it rolling, rippling outward, gaining momentum? It is obvious, if all of you turn in nice reports and go home, this will have an effect, but this won't keep the Nation aroused as it should be. Because if this is to be a crusade of sorts, I think there has to be a constant input of ideas and I think that, therefore, there is a very important need for outstanding national leaders to be prodding this Council, to be advising the President, to be performing both functions. Unless we have in some way or other a continuation of what is going on here today, it is my feeling that we will have lost something that is very important to us right now.

Secretary FREEMAN. I think that an advisory committee, a reasonably small one, would be very useful. I think it could create better understanding by individuals, groups, and local governments of what the Council does. We sit down and work problems out, and we are subject—and I choose these words—I hope you won't misunderstand—to a certain scrutiny in this process. The stubbornness that might exist at a given time and place in a given department when something ought to be resolved or when there is overlapping, might be overcome by just a little extra push, muscle, scrutiny, or outside help. Otherwise we may not get over this hurdle of resolving difficult problems. In this sense, an advisory group would assume a very important role by providing a focus of attention, and by helping resolve amicably the difficult questions. Such a group could perform a very useful function.

Mr. WHYTE. There is a great deal of confusion out in the field over the rules of the game between the open space program under HHFA and the Land and Water Conservation Fund of the Department of the Interior. A lot of people are wondering what the boundaries of each are, who does what, and where. Because of this confusion a lot of local projects have been grinding to a halt.

When might there be a clarification on this?

Secretary UDALL. Mr. Weaver and I have spent several hours around tables with other people in the Administration and I think we are very close to a resolution of this problem. I don't think any-

thing should really slow down because the Land and Water Conservation Fund doesn't come into operation for a month until the 1st of July. We think this offers a big, new assist to the States and we hope it will give a whole new rolling momentum to State outdoor recreation programs. We hope the open space program is improved and we think there ought to be some clean lines of demarcation and everyone will understand the objectives of each program.

Mr. WEAVER. I would agree. I don't think there is any question about this. By the time Secretary Udall gets his funds and we get additional funds there will be a resolution. There is an agreement in the Administration, and I think Congress also reflects an acceptance of it that there will be financial parity between the two programs. This was really the great problem, one program having one grant level and the other another grant level.

Secondly, I don't think we are going to have complete lines of jurisdictional separation, but there will be spheres of influence and these in theory I think have been settled. Now we are trying to put into language the philosophy which Secretary Udall and I have agreed upon. I don't think we are going to have any problem here and this will be resolved by the time the money is available.

Secretary FREEMAN. May I comment on this? This is a substantive question and it got a substantive answer. The degree of cooperation within this Administration is evidenced by the statement here that this is being worked out.

It would be proper, I think, to schedule similar matters before the Advisory Council. A comparable question was discussed and reported on in relation to the Allegheny Reservoir. If the members of the operating departments can't resolve some question, then the problem should be discussed and reviewed by the Council.

The Council could give an advisory opinion. This opinion would not be binding on the participants, but it might help bring about an agreement.

Senator FARR. This question should have been addressed to Secretary Connor but perhaps the Chairman or Mr. Crafts can answer it.

What is the relationship between the highway beautification efforts of the Highway Research Board, the scenic roads and highway study of the Recreation Advisory Council and the new national advisory committee to the Secretary of Commerce on highway

beautification? And is there overlapping and duplication in these efforts?

Mr. CRAFTS. I don't think there is any, Senator Farr. Secretary Connor could handle this a lot better than I can.

As I understand it, the highway beautification program relates to the existing ongoing programs of the Department of Commerce and the Bureau of Public Roads. The new advisory council that the Secretary of Commerce has appointed is concerned with highway beautification as related to the Federal-aid highway program. There is a relationship between a citizens' group for this somewhat limited purpose and a citizens' group that we were talking about a few minutes ago that might be advisory to the President across the board on these matters.

With respect to the scenic road and parkway study, this is being chaired by the Department of Commerce, but it is a program-development undertaking that is being carried out for this Council. It will be submitted to this Council and presumably in due course to the President and probably will require new legislation.

So I would say there is certainly a very close relationship here, but I don't see that there is overlapping or duplication.

Mr. BRANDWEIN. You spoke of criteria. I was just wondering whether any criteria had been developed with regard to redevelopment which would have concern for some animals or plants that took almost three billion years to get here. Is there any way in which biologists, ecologists, could work in tandem with engineers to assure these criteria might be met?

Secretary FREEMAN. You are referring now to highway construction in this regard?

Mr. BRANDWEIN. I am referring to any program that wipes out areas where there are living things. I should worry generally about useless elimination of living things.

Secretary FREEMAN. Let me say in connection with programs within the Department of Agriculture, like the small watershed program, we involve both State and Federal fish and wildlife people every step of the way. There are also within the Department of Agriculture matching funds available to develop fish and wildlife habitat in watershed projects.

Mr. Crafts, could you answer that question in relation to the highway construction?

Mr. CRAFTS. Not particularly with respect to highway construction, but there is provision in the Land and Water Conservation Fund Act, as you know, for the making available of certain portions of this fund for the purchase of areas to protect endangered species of fish and wildlife.

Now, the success of this aspect of that program depends in part on some additional substantive legislation which has not yet been passed but which is pending within the Administration at the present time.

Secretary UDALL. If I may comment.

It does seem to me that one result of this conference—and maybe the views of some are a bit too harsh, because I think there is change in the air—the advocates of the bulldozer approach to development, and let's call it the former system of building highways, are very much under attack and on the defensive. I think that what we are seeing, really, is the entry into this whole process of land-use planning and the relationship of people to this over-all environment, a whole series of new considerations. The one you mention is an important one.

Another important one is the preservation of all kinds of historic landmarks. It is fantastic the destruction that we have done in a lot of our new programs in the last few years in terms of destroying things that are an important part of our environment and of our history.

I think, ten years ago when I first came to Washington, for example, the highway program was in a watertight compartment and all of us—all of the departments seemed to be looking backwards and worked more or less in isolation. I think we are now aware of this and that's why we sit here together, our programs are interrelated and we have to be sensitive to all these values and try to accommodate them within the new programs that are being activated. I think this is one of the grounds for hope in this conference.

Mr. CLAY. Our waterfront panel has been quite disturbed at the obvious conflict between the present deep-rooted and single-purpose construction practices of many Federal agencies, especially those agencies that had to do with water development.

My question is, what changes are needed to help Federal agencies with water control or water resource programs to meet the President's objective?

Secretary FREEMAN. I think this question might go to Mr. Paul because you probably had in mind some of the structures that are larger than those with which some of the rest of us are involved.

Mr. PAUL. This is a serious question that deserves a better answer than I am able to give it. This is a matter for the Corps of Engineers, of course, in their primary responsibility in the civil functions programs.

All I can say is that we will bend every effort within our authorities to meet the President's objectives.

Secretary FREEMAN. May I say that Mr. Paul has evidenced his dedication to these principles again and again on the Council, and I don't think that there is a better or more sensitive conservationist in the country than the Secretary of Defense, Mr. McNamara. I am sure they will be most sensitive to this.

Mr. WAGNER. We build some rather large projects in the Tennessee Valley, too.

Someone once said that the major trouble with this country is that the Indians had such a poor immigration policy. I suppose that really is the cause of this conference. At the same time, it is true that we are here, and the resources are here for us to use and I think they were put here for man and not vice versa. And as our civilization moves we have turned to using these resources, including the rivers. I think they can be so used that they will contribute beauty as well as economic strength. When I spoke earlier about citizens' advisory councils I had this sort of thing in mind.

We in TVA have learned as we have gone along—we found most recently that when a new reservoir is proposed, if you have planning machinery in the area—State planning commissions, county planning commissions, municipal planning commissions—it is wise to get them together, to plan deliberately and in advance how the reservoir shoreline will be used so that, for example, areas which will be needed and are suitable for waterfront industry are not preempted, subdivided for cottage sites or other uses whose requirements are less exacting.

This kind of planning with citizens' groups before a reservoir is constructed is essential. It permits such groups to plan for construc-

tion, and to minimize costs by acting ahead of reservoir filling to build marinas, to develop park areas and other water's edge facilities. I think, Mr. Clay, that this approach is a beginning answer to the question that you raised.

Mr. WEAVER. May I say something?

I would like very much to urge each one of us here who happens to live in a city where you have river banks, to look at your own cities and see what we have done to these river banks. I am always struck by people who go 30 or 40 miles to get to some water when they have it right at home, and have misused it and let it be misused to the degree that it has been. Now we have in the pending legislation for the Housing and Home Finance Agency a small program to assist in the beautification of such areas. But this program isn't going to be worth anything unless there are many, many places where many, many people decide to do something about what I think is one of the greatest abuses of our natural resources right in our own backyards.

Mr. SIMONDS. There are many governmental programs relating to the creative planning of our cities, our roads and our countrysides that are hard for us in the field to understand and to relate. We are wondering, could it be considered a function of your Council to prepare and keep current a manual listing these programs and outlining their essential provisions and application?

Mr. CRAFTS. Some of this has been done. There are several publications and lists of various ongoing Federal programs that are available. Some of them have been put out by Commerce, Interior, and I think Agriculture.

But what has not been done, if I understood the question, is to go into the detail and relationship of one to the other, and give substantive information about how they are interrelated. This has not been done.

Secretary FREEMAN. We will look into that.

Mr. WEAVER. The difficulty is, you can do this under many, many headings, and then you get this proliferated out almost ad infinitum. If you take it from the point of view of a particular interested operation, then you get one catalog. If you take it from another point of view, you get another. I am not so sure and not too sanguine that you will ever be able to get out all the catalogs. I think it is almost a custom job that has to be done.

Secretary FREEMAN. Will somebody ask the Secretary of Health, Education, and Welfare a question this morning? He is getting a free ride here. We can have a few from outside.

Mr. WEAVER. I just wanted to make a general comment and I am sure that I speak for my colleagues to this degree that no one on this Council desires to promote any Czar of Beauty. Beauty is a very intangible thing. Its ramifications extend far outward and if we are to get the Great Society over into the domain of beauty, and the creation of what I am sure we all as citizens want, the amount of inertia is such that I think some kind of interchange between the citizens and government, such as we are having here today, is an excellent thing. We should continue it, because otherwise papers die on desks. In the beginning of a movement of this sort there is so little initiative, so few people in a position to speak, that I think here is where education—now I am coming around to this point—is enormously important. As my friend was remarking yesterday, beauty is intangible—it may exist in the human heart, in the individual, or outside in the landscape. These things are so interconnected that I think that some constant interchange is enormously important in the educational area and it is being neglected to a very considerable degree.

Secretary CELEBREZZE. Let me say that I am a great listener. The reason I am a great listener is that, unlike the other Secretaries here, I have 260 advisory committees.

I want to comment on the point of education. Let me preface this by saying that the beauty we are discussing was here once, but man has destroyed it to a great extent. Now, the question is, how do we change human behavior to restore beauty?

I think that in the educational process we must teach people to appreciate things—how to live with the better things. What, for example, impels a person to tear the slats off of a park bench? If we could save the money that we spend in this country to restore articles destroyed by vandalism, this amount alone would go a long, long way in beautifying—in meeting some of the objectives of this conference.

Now, when we speak of the education process in this connection—when we speak of beauty—we must consider that beauty means many things to many people. Recreation, too, means many things to many people. To a very old person, for example, recreation may

mean simply sitting on his front porch and rocking and looking at the green grass. To others it means traveling long distances, perhaps to the national parks.

My field of endeavor has been primarily in congested cities. I was reared in congested cities and I was mayor of a congested city for five terms. In such places we must start at the local level—through your guidance clubs, your recreational councils, your neighborhood and area councils—you have to start at the grassroots, so to speak. If anyone thinks that we can concentrate on this problem at the Federal level and get it licked, he is just wasting his time. Somehow we have to get down to the grassroots level.

Now I know the cost of vandalism. In my own city of Cleveland I could have built 10 extra swimming pools each year for what it cost to take care of vandalism. And when you get right down to it, the whole problem is one in educating.

Much of this can be done in the schools. We have underway at NIH at the present time some studies in human behavior—what causes people to do certain things. I think that we are going to have to put a great deal of stress on the educational process—on teaching people to appreciate beauty—including the material things that have both utilitarian and aesthetic value.

Not everyone can go to Secretary Udall's State and see and enjoy the wide open spaces. In the congested cities, working along with Mr. Weaver, we must create open spaces and parks, we must purify our polluted water systems—and there again, if we rely solely upon the Federal Government to purify our rivers and streams, we are going to be greatly disappointed.

Water pollution—and air pollution—can be stopped on the local level. In many instances it is a political consideration. People must be taught that the most precious thing they have is water—our water supply in this country—and that our waterways must not be sewers.

Now this sometimes requires rough action on the part of mayors and governors. In the city of Cleveland I had to draw a line on housing development in the outskirts of the city because they were putting in septic tanks. Fortunately, the large cities in most instances control the water supplies, so they can say to the suburban developers, you will get no water unless you put in proper sewer systems and a sewage treatment plant.

The Federal Government is making grants along these lines. But aside from that which the Federal Government does, it is, I think, basically a problem of educating the American public on the appreciation of beauty. And unless we do so, we may come back time and time again to conferences such as this, and still solve no problems.

CHAPTER 4

THE FEDERAL-STATE-LOCAL PARTNERSHIP

10:30 a.m., Monday, May 24

The Chairman, Mr. GODDARD. With your permission I will quote very briefly from a report I presented to the North American Wildlife and Natural Resources Conference held here several months ago.

The task of conservation in the years ahead is to convert men from a parasite of earth to its steward, not just because we enjoy the beauty and bounty of the earth for its own sake, though we do, but because the continued existence of civilized man himself is involved. The conservation must unite a parasite of earth to its steward—the resource sciences with an aesthetic for a new America. We must make sure that from here on out, we are running our technology and it is no longer running us. Technological know-how must become the chief handmaiden for creating and preserving a balanced, healthy, and beautiful environment capable of supporting man and his fellow-creatures indefinitely.

The majority of the panels of this great and historic White House Conference on Natural Beauty are in my mind technical in nature. They will recommend and suggest specifics to accomplish the goals you and I are looking for. The great challenge as I see it for our Panel on the Federal-State-Local Partnership is to suggest ways of getting the job done.

We have an aroused public interest. We have a sympathetic Congress. Conservation and the preservation of natural beauty has

Members of the Panel on the Federal-State-Local Partnership were Ramsey Clark, Robert Edman, Maurice K. Goddard (chairman), Luther Gulick, Senator Edmund S. Muskie, Joseph Penfold, and Fred Smith. Staff Associate was Norman Beckman.

become a potent political force. Its impact is being felt every day through the mass communications media and our educational systems.

We now have important acts of Congress to aid us. We have a Land and Water Conservation Fund Act. We have a National Wilderness Preservation System. We have a wetland acquisitions program. The list is almost endless and there are more on the way; for example, Senator Muskie's new Water Pollution Control bill, S. 4.

I am confident that we have or will have the tools as a result of this conference. But will we be able to establish effective administrative procedures to accomplish the goals we have set for ourselves?

As I see it this is why we need this panel and the two related panels—the one on Education and the other on Citizen Action which will follow tomorrow.

Senator MUSKIE. I recall the first piece of advice that the then Senator Lyndon Johnson gave me when I came to the Senate. He reminded me that when I was talking, I wasn't learning. This is good advice to give a freshman Senator and, I suppose, it is good advice to give to a Senator at any time.

I have often thought we could substitute for the filibuster rule of the Senate a sort of unwritten rule that many people practice. I recall the story of an out-of-Stater who was trying unsuccessfully to strike up a conversation with a Maine native and finally, after considerable frustration he said in exasperation, "My God, do you have a law against talking in this town?" The native said, "No, but we sort of got an understanding that we don't say anything that doesn't improve on silence."

I think that's a rule that the Senate might follow.

And so, undertaking to observe that Maine rule, rather than the more liberal filibuster rule of the Senate, I am going to confine myself to a relatively few comments.

We could, of course, if we got into the substantive issues of conservation and beauty, embark upon a long discussion of all of the issues which are of concern to us as individuals. But I take it that we are concerned here principally with the problem of the mechanics of creating and implementing effective public policy on the Federal level, State level, and local level in dealing with this new concept of conservation which is stimulating and exciting so many Americans.

We are concerned, of course, with water pollution, air pollution, and in these two fields we are, I think, involved in emerging organi-

zational and policy relationships among the three levels of government which are taking increasing form along constructive lines.

As we consider this problem of the organizational approaches to improving the coordination of Federal agencies or Federal-State-local coordination of recreational affairs, I think we ought to recognize two important points. One, that the operating agencies on the State level will vary from State to State and will permeate the entire structure of State government. The operating agencies on the Federal level also permeate the whole structure of government and will vary from those on the State and local government levels. To establish a vertical relationship through the Federal system which will tie in these variations in operating agencies on the Federal-State-local level is a considerable problem, but we ought to avoid getting so involved in the organization problem that we overlook what it is that we are really trying to do.

What we are trying to do here is to inject the concept and a feeling of urgency about beauty and conservation into existing programs, rather than to try to restructure everything that we are doing on the State and local and Federal levels in these fields.

For example, the States vary in their highway programs with respect to their policies and with respect to the urgency that they feel about the impact of highway construction upon the beauty of America. And these variations relate not only to billboard control and to roadside picnic areas, but to junkyard control and many others.

Now, I don't think dealing with the problem of beauty as it relates to highways requires that we restructure our organization for building highways, but rather that we find a way to create a new sense of urgency and to incorporate into our highway program a new concept, a new perspective on its relationship to the landscape in our States.

Carrying this thought further, then, we have got to recognize that natural beauty and recreation are really functions of land or water use by people in one way or another and that these functions and our way of dealing with them in government are spread throughout both levels of government and will continue to operate in that way.

I think the recommendations that we are considering this morning for dealing with this problem of natural beauty on the Federal level recognize the points that I am trying to make. I think we have to recognize that the primary responsibility in this field rests at the State and local level, and that it should rest there not only because of the concept of States' rights involved—as a matter of fact, I

think we ought to forget about that in this field—but because if we can get those levels of government operating effectively in this field, we will get a better job done than if we were to try to create a Federal monolith reaching its tentacles into all aspects of American governmental life.

With that, Mr. Chairman, I think I risk trespassing upon the limitations of my Maine rule if I were to continue. So for a while now I will observe a respectful Maine silence and listen.

Mr. EDMAN. When I was invited to this panel I was asked, if possible, to take the role of a devil's advocate. I was told that if in my presentation I could arouse the ire of some of the participants, this would be a measure of success.

Accepting an invitation at its face value, I am going to comment a little bit about Federal-State-local relationships from the point of view of my experience in the Minnesota program.

A true partnership can exist only if each of the partners is sure of its proper role and if he understands what responsibilities his partners have assumed. Unfortunately, in the field of programing for the preservation and development of the natural beauty of this country, two of the partners, i.e., the State and local units of government, are confused regarding the role of the various Federal agencies.

We are all aware of the "701" program, "Title VII," "566," Community facilities loans, RAD programs, OEDP's, etc. Some of the programs require a comprehensive planning approach, some do not. Each of the agencies is adopting its own definition of "plans" and too many of the agencies seem to gear their requirements to how fast they can distribute funds rather than to identify eligible projects according to correlated, comprehensive requirements.

Obviously, some Federal agency must be given this responsibility. If this is to be the BOR, it is difficult for many of us to see how this can be done unless BOR definitely adopts the comprehensive planning approach and is placed in a true coordinating position. The Department of the Interior would seem to be a questionable location for an agency responsible for complete outdoor recreation and natural beauty responsibility.

The Minnesota State Legislature during 1965 adopted a comprehensive new program of outdoor recreation to supplement the financing structure initiated in 1963. In 1963 Minnesota set aside one cent of the cigarette tax to launch an accelerated program of land acquisition. At the same time it created the Minnesota Outdoor Recreation

Resources Commission. During the past two years MORRC took a good detailed look at current State, Federal, and local resources programs and recommended a complete package of planning, coordination, grants-in-aid, and land acquisition.

Minnesota has come to a number of conclusions regarding development of the natural beauty of the State—all of them directly involved with Federal-State-local relationships.

1. Planning for the preservation and development of the natural beauty of the State is not a matter for partisan exploitation. It must be made abundantly clear to all that it is poor politics to play politics with our natural resources.

2. A program of resources preservation and development must look at the complete picture. We must recognize that the conservation groups alone are not the only portions of the society interested in—and responsible for—protecting our heritage. We need more parks, and forests, and wetlands, and public access, etc. But clean water, scenic highways, proper zoning, history, archeology, paleontology, natural areas, billboard control, etc., are all part of the total picture. In many cases in our rush for land acquisition programs, we sometimes forget to correlate these needs or give them proper priorities in our spending programs.

3. It is impossible to intelligently plan for development of our resources without proper research and planning. Therefore, all levels of government must recognize the need for acceleration of our topographic mapping, soil surveys, hydrologic studies, river basin studies, and comprehensive planning.

4. You can't do recreation planning in a vacuum. Recreation planning must be within the framework of a comprehensive planning approach.

5. Comprehensive planning on every level of government, from the Federal down through State planning, regional planning, county and local planning, is an essential first step in recognizing the responsibility of each unit of government involved in protection and development of our natural beauty.

6. Logically, it follows that acquisition and development programs must be accompanied by adequate controls and zoning on the State and local level.

7. It also follows that any and all grant-in-aid programs and loan programs must be identified as part of the comprehensive planning programs of the various units of government.

8. It is most disturbing to many of us working on a State and local level to find how many various Federal recreational programs do not require project identification as part of a comprehensive approach. Some of the new Federal highway requirements are a step in the right direction. Certainly the Housing and Home Finance Agency "Title VII" approach is sound and should be encouraged. But these are the exceptions. "566" funds for recreation are not necessarily correlated with State or county recreational plans and neither are game and fish funds. We all know of ARA projects and Community Facilities loans for recreation with absolutely no correlation with the over-all needs of the community. Yes, and I realize at this conference that this may be heresy, but too many States are rushing their statewide plans to meet BOR requirements, with the prime objective of getting Federal money instead of looking at their State-local relationships.

In Minnesota the legislature has approved a new grant-in-aid program that pays up to 50 percent of the local share of any planning program that includes a complete natural beauty program as part of the plan. At the same time the State has set in motion a State regional planning program. A million dollar grant-in-aid program was also initiated paying up to 50 percent of the costs of any recreational and natural resource program, including scenic easement, archeology, historic sites, etc., that is eligible for Federal funds from any of the various programs. Minnesota, however, has said that all the projects must be identified as part of a county or regional comprehensive plan approved by the State. This approach seems sound to Minnesota and we commend it to our partners on a Federal basis for serious consideration.

Mr. GULICK. As was said here by the chairman and by Senator Muskie and by Laurance Rockefeller in the plenary session, this roundtable is concerned with ways and means of achieving the goals which have been presented to us with such flaming enthusiasm in the President's address on this whole subject.

I come to this as a management engineer, concerned with how you organize to accomplish the great dreams that you have set yourself, the goals that you have presented, the enthusiasms that you have aroused in the American people. Because there is no question about it, the President has not only aroused the enthusiasm of many other leaders in this country, he has released a desire, alleviating a hunger which has been there for years, but which has never had a chance

to focus effectively on a composite program which would produce results.

What you have to do from the management side is to define your great goals, then break them down into doable pieces. You have to break them down into doable pieces and then you examine the existing apparatus of public and private activity to see to what extent these various pieces are being carried forward and to what extent they are in each other's way, and so forth.

Now, you follow these two steps, breaking the goals down into doable pieces and then examining the existing mechanisms of government and private enterprise and private orientation to see what is being accomplished. Mr. Edman just talked to us about an extraordinarily effective program which, be it noted, was started four years ago step by step, taking advantage of Federal aid and Federal help, and of local action and local enthusiasm. The leaders of the legislature banded themselves together with the citizens to go to the public with a program which, they said, in a very conservative State, has produced the most comprehensive pattern of State, regional, county, and local planning that we have anywhere in the United States. This is the answer of rational men dealing with a great problem.

And, as he indicated, it is very difficult at the present time for the States to work with the Federal Government on this program because at so many points the Federal activities are set up on a different pattern than are State activities.

Now, it is inevitable, as the Senator said, that the structure of governmental operations within the States will differ from State to State. Our county structures are different. Our habits are different. Our conservation practices differ in the different States. Our natural resources, our natural duties are different. So that the whole thing is and should be quite varied.

The second point that the Senator makes in approaching this question of natural beauty and the realization of its values for the American people is that we are concerned with two things. One is the activities that affect our resources and make it possible for us to utilize our natural beauties, developing a quality of administration, a quality of planning, which elevates and inspires and creates a new perspective. And to this I would add one more, if I may, and that is—it grows from this idea—when I ask you where is natural beauty, you are going to tell me it is out yonder. I tell you it

is inside us. It is in you. It is in your mind and in your heart. A beautiful waterfall is beautiful, provided in your youth you were taken to picnics by a waterfall and you came to love the beauties of nature.

I am glad we have our special panel on the subject of education which will go into all of this. Coming then to this, you've got to have a center of strategy. It isn't a problem of coordination. We are going to build highways and we are going to purify water and we are going to deal with air pollution control and limit advertising and put some controls on junkyards. But you've got to have a strategy and for that you need machinery at the Federal level, you need machinery at the local level, and you need machinery at the State level. Even if the internal operating patterns are different, they can work together effectively if you create in each major area a center of strategy.

Mr. CLARK. It is most pleasurable to be able to talk on something as happy as natural beauty. This is an opportunity lawyers don't get too frequently since we are most often concerned with legal technicalities, civil rights and crime rates.

I am here primarily, I assume, because I have spent four years in the Lands Division of the Department of Justice and have particular experience in that connection that might shed some light on the problems that we are considering this morning.

I should say at the outset that because of the complexities of the Federal Government, the Lands Division perspective—litigation in court in connection with land and related natural resources—is not ideal from the standpoint of a program of policy consideration. I like to think first of the relationship between environment and character. It makes me think of an old Norse saying that the North made the Viking. I think this has great truth about what concerns us here today. Justice William Douglas put it in more colloquial terms when he talked about the mountains of Oregon when he said, "Mountains make decent men." But he wasn't talking about mountains in which strip mining and other ravages of civilization had destroyed the natural beauty.

Government is today the technique available to us for securing natural beauty. We can talk about natural beauty and we can have and need all the associations and private organizations interested in conservation and natural beauty. But when you get 195 million Americans and concentrate them in our great metropolitan areas,

it is clear that government is the instrument and technique of securing natural beauty. And this brings us to the first need, in my judgment, which is coordination and cooperation within and among governments in their planning, programing, and execution to secure natural beauty.

Coordination within governments, such as the Federal Government itself, is indeed a very difficult problem. I think it is helpful to think of Federal land ownership briefly. The United States owns a third of all the lands in the 50 States—768 million acres—and owns 22 percent of all the lands in the 48 contiguous States. This is an immense heritage. It is a heritage that at its height, at the time of the purchase of Alaska in 1867, consisted of 80 percent of the land.

The values of these lands and their related resources are immense. The book value of the Federally owned lands and related natural resources exceeds the national debt. And in my judgment the fair market value of these resources would exceed the national debt by a great deal. To illustrate this, the White House, just within a mile of here, is carried on the books at \$1,000. That's what we paid to acquire it. If we look into it, it is worth a little bit more than that. We are still carrying some millions of acres of Louisiana Purchase at 3 cents an acre, but fortunately none of us can buy the land from the Federal Government at that price.

I would like to think that this country will devote this remaining heritage in the form of a trust for the environmental health and beauty of the future. We are talking about 12 percent of the oil and gas production of the United States on Federal lands. We are talking about 25 percent of the timber production, and these are not developed to the extent that other resources in the country are. If we devoted these resources to the needs of future generations of America in terms of environmental health and natural beauty, it would be the highest and best use to which these assets can be put.

In looking at them, though, we have to look at history. We have 7,000 statutes relating to the use, the regulation, the disposition and the acquisition of Federal lands and they go back over a period of 120 years. Many of them have no relationship to modern needs. Fortunately we have just created a Federal Public Land Law Review Commission. This Commission will engage in a study of all the Federal land laws and needs, and natural beauty should be among its foremost considerations.

We need to think in terms of redistribution of Federal landowner-

ship. We own 45 percent of California and 64 percent of Idaho. When you get into the east, this great metropolitan area from here to Boston, our land ownership is highly inadequate.

If we can bring these resources under control through all these Federal agencies, for the benefit of our children, we will have an immense opportunity in the future. If we don't and if we continue the depletion and the nonuse and misuse of these Federal lands, we will pay a terrible price.

Today conservation has come into its own. Through joint planning and joint effort, Federal, State, and local, we have a great opportunity for improving the natural beauty of this country.

Mr. PENFOLD. The Outdoor Recreation Resources Review Commission, as a major item of its report, recommended establishment of a Recreation Advisory Council to assure application of high standards, to achieve full coordination at the Federal level, and to encourage these same goals at State and local levels, including the private sector.

The public is concerned with coordination as it results, or fails to result, in high standards of accomplishment, and as it provides or fails to provide clear channels through which the public can effectively voice its needs and desires, its apprehensions, disappointments, and complaints. The public couldn't care less about the mechanics for achieving day-by-day accommodations between competing agencies. The public mostly sees the lack of meaningful coordination demonstrated in very real, down-to-earth situations. One arm of government drains productive wetlands while another develops wetlands for the same productive purposes; one arm of government seeks to set aside areas for natural beauty and human enjoyment while another bulldozes, or chops, or floods its way through precisely such areas. There's a long and agonizing list.

The need for the partnership approach among Federal-State-local levels is obvious. But the partnership must be more than just among governmental agencies as such. We cannot assume that the vigor of an idea or the validity of a complaint will survive the long journey from the citizen through the treatment works and filter beds of successive layers of bureaucracy. The public in some way must participate vitally in the policy determination field at all levels and help provide the basis for essential political push.

There is scant evidence yet that RAC is achieving these goals.

With these things in mind and to beef up the Federal effort toward these goals I offer the following suggestions:

1. That RAC be given a broader base—incorporating natural beauty as a prime purpose and responsibility, such to be carried on down and throughout the departments and agencies of the Federal establishment;

2. That RAC be given greater stability and stature in the administration by the appointment of a permanent chairman—the Vice President; and

3. That the President appoint a Citizens' Advisory Committee, representative of the broad interests of the public, to serve the President and RAC on a continuing basis and to provide a meaningful focal point for citizen interest and concern.

The President's Water Pollution Control Advisory Board, as one example, clearly demonstrates this to be an effective device for bringing vigorous and well informed public opinion into policy discussions.

The Committee suggested should be small enough so that it can meet frequently—not only in Washington, but more importantly in the States and communities across the Nation where policy, planning, and coordination have their real impact on resources and people.

4. That the Bureau of Outdoor Recreation be taken out of the Department of the Interior and be placed as an independent agency directly under RAC.

The Federal Government, through the Land and Water Conservation Fund Act especially, is urging the States to undertake thoroughgoing coordination in order to develop truly comprehensive and forward-looking Statewide and outdoor recreation plans and programs. The Federal establishment can do no less. The magnificence of the opportunity requires it.

Mr. SMITH. What I want to do is to take an honest look at some of the facts of life that we face in getting this job done.

I think the first fact of life we have to face is that natural beauty is largely a philosophical concept and we never in the world are going to legislate it into being. Civil Rights is something of a philosophical concept, too, but at least there are some ground rules in the Constitution, which doesn't say a word about natural beauty. From this we have to conclude that our forefathers didn't realize what a mess we were going to make of the place.

All we have to start with here is great enthusiasm on the part of

the President and considerable acceptance on the part of the people. We have to utilize that, mold it, parlay it, if you please, into something with muscle that will make it possible to do this job. That isn't much to start with. It is not much to start with, contrasted with the other things that the government and the governmental agencies all down the line have to do. Their jobs are comparatively simple. When I build a road I can set up somebody to do that. This is more difficult. This is the first thing. It is kind of amorphous.

The second fact of life is that we can't set up a line agency in the Federal Government to go out and do this job. What actually is going to happen is that virtually all departments of government must be inveigled somehow into adding a homemade dimension to the already complicated job they are already having trouble doing. And then somehow or other we have got to infuse our consciousness of natural beauty into all the confusion of functions of all the agencies of 50 States and well over 100,000 localities.

This again is a matter of influence. It is influence with muscle and this is something new. The third fact of life is that this is essentially a new role for the Government. Since the Government is going to do this, it means the Federal Government. Probably some new mechanism will have to be invented to make it work, if it can work.

So what we have done here now is to try to discover where we start inventing.

The first thing we must have, quite obviously, is something or somebody or some groups of somebodies in the Federal Government whose chief function is to set policy, create plans, mediate the innumerable problems that are going to develop among the various levels of government, among people, among business and conservationists. This in itself is a lifetime job—to supplement State technicians with Federal experience and talent, to promote and encourage State action, and to expedite that action in every possible way. Internally, it should promote coordination among various interested departments. This suggests that the Federal organization should be simple, authoritative, and direct-acting.

It demands that the key Federal agency, which is the Recreation Advisory Council, be uncluttered by departmental bias or interdepartmental bureaucratic pressures, because this not only interferes with internal coordination, but disturbs Federal-State relationships in any comprehensive project. The Council therefore should be directly responsible to the Office of the President, and it would be

desirable if its chairman were not only a Secretary of one of the participating departments. It has been suggested that the Vice President be its chairman, which in many ways would be highly desirable, especially so long as the Vice President has an active interest in such matters.

The Council should expand its responsibilities to cover all phases of beautification as well as recreation, and this would mean that departments other than those now represented on the Council would be increasingly involved. The Council should include such departments, even if only on an associate or part-time basis. The Federal Power Commission is a case in point; it has literally thousands of withdrawals on record for potential power sites, and its power of condemnation can be superior to that of the State in which it wishes to see something constructed. Whether, where, and how construction proceeds can be vital to this program.

Simplifying Federal procedures also suggests that the BOR might become more directly attached to the Council rather than remain as a Bureau in a participating department. In an independent position, it would find cooperation with all departments of the government easier to secure. If the BOR remains essentially a clearinghouse and dispenser of funds rather than an operating agency or a coordinating force—that is, if it coordinates by leadership rather than directive (and this is inevitable and perhaps desirable)—such a transfer of responsibility would be thoroughly practical.

In the interest of expediting activity in the States and within the Federal Government, adjusting policies to changing needs, and maintaining smooth relationships among the Federal Government, the public, Congress and the States, an Advisory Committee to the Council should be established by the President, and should periodically provide reports to the President as well as advising with and reporting to the Council. This Advisory Committee should consist of representatives from Congress, of citizens (including businessmen), and of people directly concerned and interested in the problems and projects of the States and localities. It is highly unlikely that any formula developed at this conference or by Federal agencies will be wholly satisfactory over an extended period of time; such a Committee could call for adjustments in the procedures of all the concerned parties until a satisfactory formula is found and whenever circumstances require a change, the formula could be changed. In other words, the Committee could continuously monitor relationships and expedite adjustments.

Presently established procedures of the BOR, as well as other government agencies directly involved in recreation and natural beauty, prescribe organizational patterns and procedures which States must follow. While it is necessary to have some uniformity in State procedures, it must not be forgotten that the ultimate objective of the Federal Government is to get the job done, to get it done as effectively and as quickly as possible, and to dispense funds where and when they are warranted. The States themselves, therefore, should have more to say about plans and procedures.

This suggests that a continuing State advisory group should have a hand in working out and expediting procedures. It is conceivable that this could be done either by having a permanent State advisory group, working in conjunction with the BOR, or by a subcommittee of the Advisory Committee. There are assets and liabilities in either case which need to be analyzed carefully.

The relationships of the municipalities to the State and to the Federal Government are a matter of concern in this program. It might be wise to suggest the establishment of an advisory committee within each State, consisting of representatives of—

- (1) The State agencies involved;
- (2) The major cities;
- (3) Typical municipalities; and
- (4) Local representatives of the most directly concerned Federal agencies.

Such committees would not only clarify Federal-State-municipal responsibilities and relationships, but would keep the States and municipalities aware of the possibilities of Federal participation, since many agencies, in addition to the BOR, are directly concerned with this problem, and many have funds available for specific types of projects. BOR representatives could meet with these committees when possible and could thereby keep a firsthand check on progress.

Because so many Federal agencies are concerned in recreation and beautification, and have aids available, the BOR should establish a clearinghouse unit to provide information about procedures and all departmental aids. In this way, States will be kept aware of all of the potential Federal participation and support. Running this down now constitutes a major enterprise on the part of any State setting out to do it, and the hurdles are many and difficult. Yet the States are entitled to all the help and all the support they can get; and since the Federal Government is promoting recreation and beau-

tification, the least it can do is lead the States to places where they will get the most help and the most support with the least resistance and the least waste.

Questions and Discussion

Mr. GODDARD. Having the prerogative of the Chairman, I would like to ask Senator Muskie one question because the Senator could not be with us yesterday when our panel met informally. In line with specific recommendations of Mr. Smith and Mr. Penfold, referred to by others, I would like to get the Senator's concurrence with this recommendation.

This recommendation would establish a National Council on Natural Beauty and Recreation comparable to the proposed Council on the Arts and Humanities. It should supersede the present Recreation Advisory Council. The panel recommends a permanent, Presidentially appointed Chairman within the Federal establishment. The President should also appoint a Citizens' Advisory Committee on Natural Beauty and Recreation which shall advise the new National Council on setting priorities for national policy.

Senator MUSKIE. One thing you ought to bear in mind is that you rarely get a yes or a no answer, you know. This proposal seems very similar to that which Senator McGovern and several Senators are proposing. Senator McGovern's proposal is that there be created a Resources and Conservation Council within the Executive Office of the President. Your modification of that, I take it, would make the Vice President Chairman, and the Council would not necessarily be within the Executive Office of the President.

I think something like this seems to me about as good a way of implementing what you are trying to do organizationally as has been advanced. I think it might be well to evaluate it in the light of what I understand to be some of the thrusts of the discussion this morning.

One is, I think, the organization which would try to do this—the organization we are trying to develop here, and I am not speaking of one monolith, but the kind of Federal organization about which we are talking—ought to serve three functions or purposes. One, to identify all beauty objectives. And we are talking about beauty in the broadest possible way—conservation, recreation, scenic, qual-

ities of life—so that we ought to have somebody responsible for identifying all of the beauty objectives.

Now, since these are going to involve conflicting and overlapping requirements for land and water, then secondly, we have got to find a way organizationally to resolve the conflicts and establish priorities in order to make it possible for us to get the wisest possible use—multiple use, if possible—of these land and water resources which are in such diminishing supply in the light of the many demands made upon them.

Finally, the organizational structure ought to insure continuity and follow-through. The follow-through is terribly important when you are talking about something as complex, confusing, and as frustrating as government on the three levels in America in 1965.

So that getting back to your Council—and a Senator has a roundabout way of getting to a point—getting back to the proposal for the Council, I think this is a good starting point for discussion. It may well end up as an important element in the recommendations of this conference to the President.

While I am answering, may I touch upon just one or two other points?

We are talking about this one concept in which we are all very interested—the beauty concept, the conservation concept. But when we are all through talking, this has got to fit somehow into the total functions of government. When it does, it can get lost, as so many other worthy causes have been lost. So we have got to think about making the entire structure of government more effective also. If we are not wise in establishing the organization for this particular purpose, we may actually overcomplicate the over-all structure of government and do a disservice to our purposes rather than to serve them.

I would like to call your attention to some things that are going on and some things that are proposed in this over-all area which ought to be of interest to you.

One, there is in existence the Advisory Commission on Intergovernmental Relations. Now, this Commission has been working very hard, effectively—out of the headlines most of the time—on the job of trying to make the Federal system a more workable and effective system. And I think that it has done a good job and I think that many of its proposals haven't received the attention and the action they ought to.

One of these proposals is now pending in the Congress and relates to something Mr. Edman had to say. This is the so-called Intergovernmental Cooperation Act of 1965. It does three things. This legislation would, one, require Federal administrators who have an impact on metropolitan areas to coordinate their efforts; two, to require that applications for Federal grants-in-aid which come up from this local level be reviewed by the planning agencies; three, that periodically we review all grants-in-aid programs to make sure that they are serving their original purpose, that they are adapted to current conditions rather than the conditions under which they were created, to determine whether or not they ought to be continued at all, and so on.

Now, here are three very unspectacular, but very important recommendations. I think we ought to bear them in mind as we consider adding to the total Federal workload, to the total policy load of the Federal Government, and not only the Federal Government, but the other two levels. As we consider these organizational recommendations we ought to do so in the context of this total picture. It is, I assure you, speaking as one who has worked very closely with it, a very difficult, although a fascinating area in which to try to get results—practical, effective results for the people of the United States through this tremendous maze of government. This is a challenge and what it produces is exciting.

MR. GODDARD. I would like to point out that in our recommendations we did not say the Vice President. We said a Presidentially appointed Chairman. We recognize that the Vice President is also an extremely busy individual. Someone with authority, we feel, should be Chairman. A rotating chairmanship of the group is not the best arrangement.

MR. SMITH. One comment here. The last sentence in that first point says, "The President should also appoint a Citizens' Advisory Committee on Natural Beauty and Recreation which shall advise the new National Council on setting priorities for national policy."

I think that is fine. They should help set priorities, but also, I think that they can serve a great purpose in expediting action throughout the country. I don't think you ought to build a fence around them.

I believe that this Committee—if it is a nationally appointed committee, a busy committee—can help to continue to get the job done and I think it is essential.

JOHN J. LOGUE. My group is concerned with Federal-State-local cooperation; namely, with an expressway in our area. My question is this. In order to stop this expressway, which is called the Blue Route, we have been contacting both the State and Federal governments. But our criticisms at the Federal level are always referred to the Bureau of Public Roads and at the State level we are always referred to the State Highway Department. Not surprisingly we get satisfaction from neither of these road-oriented agencies. Now in the civil rights area Federal Government contracts are reviewed for discrimination against individuals by the Vice President's Commission. Couldn't we have some kind of review of highway proposals, both on the State and Federal level, for discrimination against beauty?

In a State like Pennsylvania, could not this be done by the Secretary of Forests and Waters, and at the Federal level by the Secretary of the Interior?

Mr. GODDARD. There is another panel which is talking directly to this, but conceivably this could be one of the functions of the council that we propose.

Senator MUSKIE. I might also put in a pitch for S. 561, the Intergovernmental Cooperation Act of 1965, which is aimed at this very kind of problem. We have had testimony which has brought in just this problem and justification for the approach. It is the purpose of that bill to stimulate review not only by directly related agencies, but also by other programs.

RICHARD LEONARD. I have a very brief, but I think excellent example of local, State, and Federal cooperation out on the Pacific Coast.

Just a couple of weeks ago we signed contracts to purchase \$2.5 million of redwoods and a superb ocean beach along the Pacific Ocean. The State of California is cooperating in that in furnishing a half a million dollars. They are also planning additional cooperation later on in the acquisition program.

Now President Johnson has approved and recommended a Redwood National Park in the area which requires Federal participation. Since most of the redwoods are pretty much in the State's hands at the present time, and need seriously to be augmented with additional lands and additional redwoods to make them really superb, we have to work out cooperation between the two agencies.

There are possibilities along the lines of excellent cooperation between the Forest Service in the Department of Agriculture and the National Park Service at Cedar Grove area of Kings Canyon National Park where the National Park Service has administered the Forest Service lands on a very peaceful basis for about 10 or 15 years.

Another excellent example is the new Ice Age Scientific Research in Wisconsin where State parks will be working in a very cooperative program with the Federal Government. We are hoping that similar cooperation can be worked out in the redwood area and provide a superb national park for all the people of the United States.

CHARLES W. ELIOT II. I would like to make a comment on the Senator's point about the other advisory councils being under consideration. It would be very desirable, it seems to me, to combine them all into a single organization.

The second point, that instead of having them just another interdepartmental committee, from our 10 year experience with the National Planning effort in the 1930's, it is absolutely essential that this should be in the Executive Office of the President.

HENRY WARD. I would like to make this observation and give this short background to qualify myself as an expert before I ask a question.

I was Commissioner of Conservation for eight years. I was a member of the Water Pollution Commission, and I have been Commissioner of Highways for five years.

I was recently arguing with one of my friends in the Federal service about the creation of another Federal agency in connection with administration. I was arguing that there was a grave danger in creating another Federal bureaucracy. He said, "Well, you already have a Federal bureaucracy, the Bureau of Public Roads. There couldn't be anything worse than that." I said, "Yes, there could be; there could be two of them."

Now, the question that I want to raise is this. This Council that you propose to create, would that be advisory—advisory to the President? Is it going to make recommendations to the President which would then be transmitted to Congress for enactment into law, or do you propose a Federal administrative agency that would get involved in giving directions to the State agencies in all these various fields that relate to this whole subject of natural beauty?

MR. SMITH. I don't think any of us has any idea of setting up another line agency that you would have to deal with. This group, whatever it is, if it is a recreation advisory committee, or whatever it is, would be advisory—an advisory body—but we hope it would listen to advice. We hope it will advise the Bureau of Public Roads rather than you. It would get to the Bureau of Public Roads and needle them into considering the beauty aspects of a project.

Your relationship with the Bureau would remain the same unless there is something within your own State that you have to key into an over-all plan. But this has nothing to do with the Federal bureaucracy.

MR. WARD. Let me make the observation; this is really pertinent. You are talking about something, as Mr. Gulick pointed out—you have to be specific in terms of administration. You have to face up to what you need to do. You are going to make a serious mistake in approaching this if you are going to set up another Federal agency to needle or advise without a clear-cut understanding as to authority.

When you are talking about muscle, I think those of us who know something about government look to Congress to determine policy, to pass laws. Congress ought to do this. If the Federal Government is going to spell out specifics in relationship to this whole subject of national beauty, this is not a vague thing. Congress ought to pass laws that are specific.

MR. SMITH. I am trying to say we don't have that authority or any of that authority.

DON HUMMEL. I would like to make a proposal which I think ties together some of the objections that have been made by the speakers here today. This is not a new proposal. It has been made before.

We have a National Security Council made up of the heads of various agencies that are responsible for national security in the international field. The National Advisory Council should not be separate or just advisory. It should be made up of the various departments that are involved with the development of the facilities in the United States. We should have a National Advisory Council chaired by the Vice President of the United States responsible to the President, made up of the Secretary of the Interior, the Secretary of Agriculture, and the head of the Housing Agency. And

by the way, the big gap here, the thing we are missing is a Department of Urban Affairs and the representation of the people in our urban communities.

If you had a Department of Urban Affairs and a group of cabinet officers—I am not trying to cover all of them—made into a National Advisory Council chaired by the Vice President, responsible to the President, you would not separate the day-to-day functions. You cannot separate day-to-day law enforcement and lawmaking functions and create beauty any more than a city council can turn over to an advisory group recommendations for a plan for your city and separate that from the day-to-day function of zoning. It is a day-to-day function and should be kept in that area.

Mrs. PAUL C. GALLAGHER. Last year Mr. Penfold's committee sent out information about a directive given by the Bureau of Public Roads that any design that goes through parks should be cleared with the responsible persons. As you have heard many times this has been a major difficulty.

I would like to know if Senator Muskie, who seems to be aware of the ramifications, has heard of any time when the parks won over the engineers?

Senator MUSKIE. I think one of the toughest concepts to put over to a highway engineer is to convince him that a road is something more than a straight line between two points.

I will say this, that there has been, I think, small, perhaps too small, victories over the straight liners. But in my State, for example, we have finally, over the last ten years made the highway department itself conscious of the need for beauty in highway design—for incorporating picnic areas, for examples. I think that is what is needed to be done here. I think Mayor Hummel's point is very good, to get his new dimension incorporated into the operating policies of these agencies.

I think Mr. Smith made this point that these national councils, these national policy proposers or makers, can set the broad guidelines and the great goals. But these goals have got to be converted into actual policy for operating agencies. I think this is what we must do with our highway departments. We must make them see and understand that they must be implementers of beauty themselves because to try an alternative way of dealing with it would be to force every Commission's policy to be reviewed by some over-all appellate

agency. I think that's wrong. I think you have got to get this beauty concept bred into the agencies and a part of their policy.

BENJAMIN LINSKY. I appreciate that air pollution has been ruled out of the discussions here at this conference. But in the proposal for a National Council, this problem of air pollution, I think becomes important especially when health considerations are not present. It is not much good to have a lovely vista to see if you cannot really see it because of manmade haze.

Would your National Council as proposed incorporate the quality factor of air pollution control?

MR. GODDARD. I would think it would. I note we did not say to put the existing Recreation or Advisory Council up under the President's jurisdiction, but in a new Council. We want to expand it to include the types of endeavors that you are discussing. I would say the answer is yes, we would want to include it.

EDWIN MICHAELIAN. There are 3,043 counties in the United States and the county government is one instrument that can be used to coordinate the efforts of all local municipalities. In considering any program with respect to natural beauty, air pollution, water pollution abatement, or whatever it may be, please don't overlook the county. It is one of the coming tools that can be used to marshal local opinion and get action.

MR. GODDARD. The county is included in our recommendations.

A DELEGATE. I have a suggestion that I would like to make perhaps in the area to be worked out between the States.

I come from a metropolitan area. There is a great deal of natural history to be looked at in city areas. The fact is that Americans are lazy and haven't been out to Fire Island, where the great holly forests are still available and can be seen. What I would suggest is this: that there be a series of institutes of advanced study such as you have at Princeton, but in the area of conservation and natural resources and that one of these centers be set up as a great clearinghouse, a center of public relations. The Hudson Valley is a site that might be recommended.

I would suggest that these centers or institutes get together from all disciplines—teams of scientists, economists, archeologists, historians, botanists, biologists, and even artists and poets—and put them to work in a creative conservation area such as the Hudson River Val-

ley, say within a hundred-mile radius of New York City. This would, of course, extend into Connecticut and parts of Pennsylvania, New Jersey, and New York. We have many like this throughout the whole United States that have to be worked on and these institutes could be put to work. There is a precedent, the Palisades Parks Commission, in which two States have cooperated in such a project. Institutes like this could be established all over the United States to further explore President Johnson's concept of creative conservation.

Mr. GODDARD. I think there is one started now.

Hon. LUCILLE PINKERTON. First, would you please consider some kind of model legislation that would help us establish on the State level and to assist our municipalities and local governments? I think this should come as a suggestion from this panel so that I can better represent my people.

A. K. MORGAN. I would like to suggest to the gentleman from the New York-New Jersey Trail Conference that the island he spoke of is being seriously considered by this Commission as an addition to Bear Mountain. Will he please keep hands off.

GLESTER HINDS. As I see it, to enhance the beauty the government should enact legislation to remove ugliness. The areas that have more than their share of ugliness shall be allocated funds to bring them up to the standard of beauty which is expected of that particular area. However, that is not the case. There seems to be a kind of inertia that prevents governments from moving more rapidly to correct these conditions.

Therefore frustration sets in and ugliness becomes a way of life. The government's poverty program is moving in the right direction. It should be tailored not to stigmatize any citizen because he or she is poor, but should become a motivating factor to improve the standard of living of our citizens and thereby stimulate his interest to work in the physical beautification of his neighborhood. This investment by government will be repaid by decreased costs in the operation of many institutions. Rebuild rundown existing neighborhoods through construction of new buildings, rehabilitate and conserve old buildings, utilize the vest pocket approach to uprooting on a block—these are the things I am talking about.

In other words, in blocks where they have good houses and there are a few decayed ones, the bad should be uprooted and the good

buildings maintained. There should be strict enforcement of housing laws with a proviso not to put a financial squeeze on the small property owners. We need to stimulate more interest in on-the-job training for high-paying jobs for older employees in private and Federal employment. To stimulate more interest in tree planting and better street and building lighting. To stress good character, honesty, integrity, good American traditions. To be a good neighbor. To take pride in self, family and assist in building and maintaining a good neighborhood.

I would suggest someone be appointed on a Federal level to direct urban activities in connection with running urban participation action programs.

I think, gentlemen, we have a great stimulus from the President and we should not take a negative approach. We should take a very positive approach and use of the Office of the President directly to focus attention on making America beautiful.

Mrs. META GRACE KEEBLER. I would like to say that we have many wonderful programs already being carried out over the country. Having worked with the Department of Agriculture for 11 years in the States, I am very familiar with the programs that already are underway and also with the thousands of other farms and garden organizations that are very active and very anxious to help in this wonderful program.

It is the most valuable and marvelous opportunity, I believe, of any we have had. I am thrilled over it. Everybody wants to enter into it and help in some way. I think that freedom of the States to select projects should not be limited. Each State, I believe, should be permitted to select the projects it believes are most outstanding, as for example, the wonderful new park that has just been set up in Alabama called Horse Shoe Bend Park. The Department of the Interior is building roads and making it a museum. The river there ought to be beautified and there are just thousands of ways this could be done. Every project in every State has something that farm and garden organizations can enter into. Please, try not to limit the power of each State and county, but encourage that.

Statements Submitted for the Record

ED DE MARS. One additional point I would like to have considered before final recommendations are made: Where the military has property along a scenic highway, local or otherwise, they can

be the key to the success or failure of the entire program. In planning their program of improvements, they should also consider the scenic values involved. It is therefore respectfully suggested that a closer relationship be established between the local agencies and the military to better accomplish this desirable end.

JOSEPH A. DIETRICH. A recommendation of the panel was that an organization be set up to be named the "Committee on Natural Beauty and Recreation." My opinion and the opinion of others I talked with indicate that the interest and success of the conference was entirely due to the title assigned to this conference—"Conference on Natural Beauty." I feel that adding the word "Recreation" as part of the proposed new name would deviate from the meaning and feelings of those attending and supporting the conference.

Recreation is supported and encompassed in many of our governmental agencies at present and is associated in the minds of many of our citizens as active, rather than passive recreation. I sincerely believe that if the word "Recreation" is used in this instance, reactions would be forthcoming from other interests such as those concerned with pollution, etc.

The credit for the conference should be to those who originated the theme and, therefore, I recommend that we not pollute the original title of "Natural Beauty," but allow it to remain as a mark of appreciation to those who conceived the idea.

MICHAEL R. FAGAN. Much has been said about the value of local zoning and/or the intervention of the Federal Government on the local level in zoning whenever the local level legislative bodies have failed to adequately zone so as to control urban or roadside blight. I am diametrically opposed to the intervention of Federal participation in local land-use control. The Federal Government is without merit in this area, while on the other hand, it could make a valuable contribution to achieve the desired end by encouraging the establishment or improvement of local land-use control through zoning by any one of several methods previously mentioned to the panel.

While we cannot ignore the responsibility of local government to zone nor the absence of adequate land-use control, it is an improper conclusion I think that we, the people, would support the introduction of the Federal Government into an area historically reserved to the local government.

Mrs. RICHARD B. GRIFFING. Frequent mention has been made of the lack of coordination and diversity of aims of the Federal agencies charged with administering aspects of conservation programs. I would like to give two illustrations of overlapping and nondirected functions and aims of Federal agencies in the conservation field and make a suggestion directed to outdated public land policy in the West and the part a reframing of this policy might play in improving intergovernmental cooperation and coordination.

In Montana, where at least 40 percent of the land is in the public domain and where the headwaters of the two major main stem rivers rise, historic and current conflicting aims and overlapping functions of agencies in the Departments of Agriculture, Interior, and Defense become highly visible—in the field. While dozens of examples are available, two current illustrations of bureaus and agencies engaged in jurisdictional disputes and overlooking emphasis on the preservation of natural beauty would suffice:

1. The Bureau of Reclamation proposal for a Sun Butte dam on the upper forks of the Sun River represents the first major invasion and nullification of the Wilderness Act of 1964. The proposals have been found impractical, infeasible, or destructive of wildlife and the purposes of the Wilderness Act by the Corps of Engineers, the Montana Fish and Game Commission, some officials of the Forest Service and most local volunteer conservation groups. On the other hand, proposals are supported by the local chamber of commerce in the hope that a dam might provide some flood control.

The proposed dam would inundate or render unusable for wilderness purposes approximately 54,000 acres of the Bob Marshall Wilderness area. It would destroy the habitual calving grounds, nurseries and migration routes of the Sun River elk herd—one of the last remaining (although dwindling) major herds in the Nation.

The arguments used by the Bureau favoring dam construction in the Sun Butte area are specious and use the damaging 1964 floods on the Sun River as a wedge to find local favor. An irrigation dam, which is proposed, cannot, by its nature, contribute significantly to spring flood control. In a time of seemingly insoluble farm surpluses, bringing extra acres under irrigation seems questionable at best. The possible benefits from the dam do not weigh well in the balance with the initial encroachment of the purposes of the Wilderness Act, nor with the Act's philosophy that neither special private interests nor government itself should be permitted to despoil the few remaining wild areas held in perpetuity for posterity.

2. The Corps of Engineers' plans for big dam development of the upper Missouri between Fort Benton and Fort Peck meet much the same objections. This length of the upper Missouri is the last 200 mile stretch of a main stem river in the continental United States that is almost entirely in its natural historic sites, and untouched beauty. The proposal of the Corps does not include a need for flood control nor irrigation. The power from hydroelectric dams is not needed regionally, and the costs of transmission in tying such projected power into the midwestern grid are prohibitively high. Main local proponents of the proposal are local rural electric co-operatives who hope that public power from these sites would be less expensive than that produced by the private power company in the area.

Original planning was intended to be a model of interagency planning for river basin development. However, when the Corps, the Bureau of Reclamation, the National Park Service, the Soil Conservation Service and the Bureau of Land Management (to mention only a few and not including the State agencies involved) could not agree on the purposes or means of developing the river, the Corps bolted from the interagency plans and is singly advocating its big dam proposals.

If the proposed dams are built, much great natural beauty will be permanently lost, without compensating benefit to the area or to the Nation. The Park Service plans for development of this stretch of the Missouri into a Lewis and Clark Wilderness Waterway would preserve a uniquely beautiful natural resource—in keeping with the long-term values held in great importance by the conference in saving and restoring portions of the Nation for the recreation, education and inspiration of future generations.

The suggestion that I wish to include in the proceedings is not an original one and is directed toward making it possible for the State governments in the great plains and intermountain States to play a partnership role in developing beautiful recreational and natural resources.

If the Federal Government saw fit to return to the States an equitable reimbursement in lieu of taxes for the great amount of Federal land in the States, the opportunities for the States to assume a part in planning and developing accessible sites of natural beauty would be greatly improved. One of the important reasons why State governments have been unable to share planning responsibilities, or to ini-

tiate them, has been the simple unavailability of funds from a small tax base to cover anything but the most pressing and fundamental responsibilities of the States.

Presently the bureaus and agencies charged with operating and improving public lands do share fees and charges emanating from the users of public lands with States and localities. The amounts received, however, do not compensate for the reduction in size of tax base in those counties and States with high percentages of public lands. While agreeing that much of the public land in these areas is not very valuable for agricultural or industrial purposes, and could not be given away under the Homestead Acts, and that such payment in lieu of taxes would represent a direct subsidy to State governments, such a payment would seem still to represent a real effort on the part of the Federal Government to preserve the principles of shared planning and federalism—and make it possible for western States to accept responsibility for planning and development.

Dr. DAVID PAYNTER. I was particularly interested in the significant role in the area of Federal, State and local partnership being undertaken by the Job Corps of the Office of Economic Opportunity.

Through the establishment of the Conservation Centers for Job Corps youth, we are placing maximum emphasis on reclamation and preservation of our natural resources and beauty. We have found that the youth joining this program have all too frequently been subjected to dull, dreary, and depressing environmental conditions, and therefore, lack a proper appreciation and understanding of the importance of their heritage, which may be found in the natural resources of our country.

Therefore, our first effort has been to insure that the Conservation Centers counteract prior environmental deficiencies by providing attractive, stimulating, and functional housing and recreational facilities. We are insisting on good planning and design of facilities to insure a proper environment compatible with strict economy. The camps are keyed to a well-rounded education with each corpsman exposed to reading material stressing the needs and benefits of natural beauty and resources. As to practical application, corpsmen, through proper guidance and instruction, are charged with the responsibility of beautifying their own immediate areas through landscaping and creation of greenbelt areas within each center.

The program has an interlocking relationship with Federal, State, and local authorities—each being in harmony with the needs of com-

munity action programs. On a regional basis, we are already programming the conservation corpsman's assistance and support to the beautification and restoration of such historic areas as Harper's Ferry. We can see a major role for our youth in the Appalachian program. As to the individual community, it is reasonable to expect that the services and support of corpsmen will be requested, particularly as they are able to beautify their centers to the degree that they become models of good planning and inexpensive beautification. Simply, our primary goal and objective is the development of our greatest natural resource; namely, our youth. Our youth, in turn, are being redirected to reclaim their natural heritage—the mountains, forests, meadows, lakes, and streams that greeted our forefathers.

THOMAS B. SATTERWHITE. While the questions relating to "Water and Waterfronts," "The Design of the Highway," "Underground Installation of Utilities," "Automobile Junkyards" and other related issues are naturally important, the planning of new urban and suburban developments by competent and effectual authority dwarfs other considerations by comparison.

In my own community, Lexington, Ky., there is an excellent test tube example of what is taking place throughout the Nation: the unnecessary destruction of magnificent natural terrain by snowballing industrial encroachments and the concomitant housing developments. Local resistance to the pressures of these interests has completely broken down, or, better put, has about as much chance as a colony of beavers attempting to dam the Niagara River.

There must come from the Federal Government strong assistance in some form which can control, plan, and direct the growth of the cities in such a way that future America will not be an utterly impossible place in which to live.

The interests involved in exploiting the countryside for their own financial gain are so strong that no regulatory entities at the city, county, or State levels can possibly oppose them successfully.

Dr. J. HAROLD SEVERAID. An important need here is for State and local governments to so zone, or freeze the price of land, or to tax 100 percent on the profits, so as to discourage speculators from inflating the value of land in which a higher echelon of government has expressed a real or potential proprietary interest. If lesser levels of government fail to do this, Federal laws should be passed

which would make it mandatory. No one has either a God-given or man-given right to profit purely as a result of the accident of location rather than his own ingenuity or initiative. Congress should freeze the price of land in which it is interested before it starts debating whether it will or will not buy it as a national park, for example. Short of this, it should itself tax 100 percent on the inflated purchase price.

Another type of legislation needed is that which would put teeth into the designation "National Historical Monument." It does little good for the government to so designate a house, building, river, or site, if it has no power to protect such an object or site from the despoilers. An object so honored should be worthy of the full protection of government regardless of ownership.

HAROLD F. WISE. Throughout the conference, constant references were made to the necessity for increased attention to regional planning. The report of Mr. Bemiss, chairman of the panel on the New Suburbia made particular recommendations to this end. Other panelists urged similar action.

The environment around San Francisco Bay, for example, is a single, organic environment, even though it contains nine counties and 83 cities, to say nothing of the untold hundreds of special purpose districts.

The Detroit metropolitan area contains 214 local general purpose governments, including six counties.

This pattern can be repeated over and over again in every metropolitan area in the country.

Individual actions of individual, independent local governments, without the identification of common cause or the opportunity for common regional action, can only continue the present visual and emotional chaos as among local governments so prevalent in our metropolitan areas today.

However, regional planning acting solely in an advisory capacity is not enough. Some form of regional decision making machinery must be devised if the organic unity that is the region is to be recognized and have the opportunity to have an effect.

I have four recommendations to this end:

1. S. 561, The Intergovernmental Cooperation Act of 1965, must be passed. This is really very mild legislation, calling only for a report from a regional planning agency on applications for Federal loans and grants in specific programs. This proposed law should

ultimately be strengthened, in the manner of the Highway Act of 1962, to make a regional planning and decision making process a requirement for any Federal loan or grant assistance.

Regional planning and decision making should be accomplished by a regional agency composed of local city and county elected officials, who have direct and personal political responsibility for the development and condition of the regional environment. Advisory citizen planning commissions or committees of planners, engineers or other administrative officers cannot make political decisions, hence, the requirement for representation by elected officials of local general governments.

2. Planning funds should be made available for governmental decision making or organizational studies as a part of a comprehensive regional development planning process.

3. The establishment of the requirement that all regional development planning financed by section 701 funds (Housing Act) include an element of the comprehensive plan on the regional landscape and regional beautification, including a section on the preservation and use of areas of regional historic significance.

4. Since local governments are the creation of State governments, thought should be given to the requirement of State planning and coordination, which would identify and relate the State's interest to regional interest, and in turn both to the Federal interest, all as a condition to the continued use of the many, many Federal programs administered through the States.

These steps will help the States and the localities to begin the long road toward regional decision making and action as the population in metropolitan areas doubles over the decades just ahead.

JACK WOOD. I wish to suggest the following:

1. That all States receiving Federal funds under the local planning assistance program (sec. 701 of the Housing Act of 1954, as amended) be required to prepare and adopt a comprehensive State plan for physical development. Provision should be made for periodic review and revision, when necessary.

2. That the States should impose zoning jurisdiction over the counties, as in the State of Hawaii. Such zoning jurisdiction should be imposed on the counties only to the degree necessary, leaving purely local matters to local governments. For example, the State could determine the principal uses of land and prescribe regulations for, say, land to be used for urban purposes, conservation, and

for agriculture. Once established, as are urban districts, the local government would have jurisdiction. Conservation has traditionally been basically a State function and should be regulated on a state-wide basis. Planning and zoning in the agricultural areas should be vested in the county authorities subject to the regulations adopted by the State.

The purpose of the above recommendation is to provide for the highest and best use of land, which can only be done on a state-wide basis, to assure its retention in that use and to lessen the entrepreneurial and other pressures on local governments.

CHAPTER 5

THE TOWNSCAPE

10:30 a.m., Monday, May 24

The Chairman, Mr. BACON. Those of us who are here together are very conscious of the fact that we are in company of an extremely distinguished group of people. It is not our objective simply to stand here and tell you what ought to be done, but rather, in company with you, to prepare as specific and purposeful recommendations as we can for discussion with the President tomorrow and, through him, with the American people.

The panel members, in reviewing their task, were impressed and concerned about the magnitude of the problem in cities with which we are attempting to deal and the inadequacies of the resources and manpower that can be brought to bear in connection with it.

At the same time, I would like to say, as a man who is rooted deeply in a local situation, that already the President's Message on Natural Beauty and the fact of the holding of this conference are extremely powerful stimuli to thinking at the level of the city government.

Mayor Tate called me to his office in City Hall in Philadelphia on Friday and told me that, in addition to the special committee which he is in the process of setting up for the explicit purpose of carrying into action the concept of the President's message, and in addition to the specific program for the planting of trees along the banks of the river for the beautification of the part of Philadelphia which is seen by everybody, he had decided to ask the Fairmount Park Commission immediately to institute a program for the planting of 2,000 street trees in the 12 Community Action Council areas of the antipoverty program.

Members of the Panel on The Townscape were Edmund Bacon (Chairman), Garrett Eckbo, Gordon Gray, Frederick Gutheim, Calvin Hamilton, Mrs. Fred Mauntel, William Slayton, and Karel Yasko. Staff Associate was David Carlson.

This program will be carried out only upon application by local neighborhood groups who want trees in their particular area. The Fairmount Park Commission will establish criteria to determine policies on which these trees will be provided for the citizens. This explicit, albeit humble, act will assert our concern about improving the environment of all parts of the city, including the least privileged.

This relates to a broad problem of which we are conscious in approaching the total question in the city of both the strengths and the shortcomings of the urban renewal program as it is now being administered.

We are concerned because, with the best will in the world, the actual products of the urban renewal program up to the present moment fall short of the mark. Too much is being spent in too small an area and too many of the people who should be receiving the benefits of urban renewal are not, because of the highly concentrated aspects of the program at the present time.

This concept of the immediate improvement of the environment on a broad basis by the proposed tree planting program is obviously not the whole answer, but it is a step to bridge the gap, to move into positive action, to give hope and encouragement to people in all parts of the city and particularly in depressed areas.

There is a kind of phenomenon which I might call the administrative hardening of the arteries which goes about something like this: The local communities become stirred up about a problem as, for example, they were with the problem of their blighted areas. They make representation to the Congress. There are hearings and Congress adopts legislation such as the National Housing Act.

Then the agencies are set up to administer the program and the program gets underway. In a massive problem such as this, the experience in the field of the local community uncovers the fact that the program, as currently administered, fails to meet precisely the objectives established for it. Therefore, on the feedback principle, which is the basis of all scientific thought and all automation, there should be a constant review, reevaluation, change in the policies in which the Federal program is readjusted so that it more and more nearly meets the reality of the problem in this field.

The horrible phenomenon is that the cities, the communities, and the local agencies applying for funds to the Federal Government, are so afraid of offending the Federal people and therefore not getting money, that there is great reluctance to suggest any revisions. This

is one of the phenomena which we must take into account. We, in Philadelphia, are deeply resolved that we will, in cooperation with the Federal Government, see to it that the benefits of urban renewal and of the city beautification programs are more widely dispersed throughout all parts of the city needing them than they are at the present.

I feel very strongly, and the panel backs me in this, that the urban beautification section of title VIII of the housing program now before the Congress can become a very important instrument for the accomplishment of this objective, and this panel urges that this legislation be adopted in the form in which it is presently before the Congress and that it be supported by adequate funds and that it be administered in a very creative fashion.

In Philadelphia over the last several years we have developed the concept that we will move into the most depressed areas of the city; that we will establish in the center of these areas oases of beauty—parks and squares next to beloved monuments and landmarks which will serve as rallying points for neighborhood pride and identification and, in the process, identification with the city as a whole.

Our first effort in this regard, our greenway in the Southwest Temple area, had a magnificent plan which centered on a small civic square, but the budget of the Housing Authority was such that our park was paved with blacktop and had only a few, poor little locust trees on it.

I believe profoundly that if this title VIII of the Housing and Community Development Act of 1965, providing for urban beautification, is administered in a creative fashion, not to extend the program but to intensify and develop real quality, real beauty, real inspiration in the projects which are already underway in the cities, that we can lift this kind of thing up to the level of excitement; take it up over the hump so that it does stir people.

Our next great effort was in Society Hill in Philadelphia. Here, with the full support of the Federal agencies and the city, we created great beauty in this section of middle- and upper-income families. It is a matter of great importance to me that when this Society Hill project was visited by groups from the most depressed areas of the city, they did not respond with jealousy or resentment. It was exactly the opposite. They said, "This is great." They were proud that this was in their city and they said they wanted this in their neighborhood also.

So we are going into our third greenway, a system of garden footpaths threaded through the Mill Creek area, so that the children can go to school and the mothers can go to shop along this continuous tree-lined footway, suddenly made possible by the fact of the collapse of an old sewer.

Just before I left, I reviewed the plans of this with Robert Crawford, Commissioner of Recreation. He has a fine architect, but the budget is only allowing for blacktop.

I tell you in definite civic terms that if this urban beautification part of title VIII can be brought to bear in this project, right in the middle of this depressed neighborhood and, instead of blacktop, the walk can have some handsome stone paving, decent trees that will make a fine effect, sculpture, fountains, something to be proud of, we will have made an impact on the very basic question of the loss of morale and the discouragement and loss of hope among our less privileged citizens. By a dispersal of this kind of program, distributed throughout the entire area as a source of inspiration, a positive assertion of beauty, we can create new centers of identification and new centers of relationship with the city as a whole and we will have established the fact that the Great Society is for everybody.

Mr. GRAY. Townscapes of tomorrow must have character and beauty rooted in nature and built upon those man-made resources accumulated throughout the year. My burden is that it makes no sense to destroy the best of what we already have while working to create an environment that will give inspiration to our people.

Organized concern for our tangible heritage began in 1859 when ladies from every State purchased and saved Mount Vernon. Through a limited but dedicated number of individuals and organizations linked together through The National Trust for Historic Preservation this concern of thinking Americans has spread across the United States. Initially the focus was on the homes of the great and the places where political and military history were made. Now, landmarks of beauty, good design and neighborhood character are also being recognized and are assuming their places of importance in the townscape.

The success of these efforts, like the number of people involved, has been too limited. There have been too few leaders, too few dollars, and far too many great buildings and places destroyed or ignored.

The citizen oriented battles to save a great Federal building in St. Louis, a historical park in New Jersey, a Victorian Mansion in Iowa, indicate that now is the time when leadership can do what must be done. President Johnson has provided the inspiration and suggested the method.

Renewed public awareness of the problems of a rootless, ugly America augers well. Basic is the need to know what exists and what is worth keeping. Once identified, sympathetic means of ownership must be established.

New and imaginative uses must be devised for the worthy structures that are to be found in almost any city.

A broad educational program dwarfing current efforts is mandatory. This must be conceived to generate wide public participation. It must infiltrate the collective consciousness of every public and private agency to bring into focus an obligation to the citizenry for an attractive environment.

As part of the creative endeavor for monuments of tomorrow, this awareness must be so indelibly marked on the subconsciousness of each individual and agency that its necessity is accepted and demanded as categorically as safety and cleanliness.

The National Trust stands ready actively to participate in this total effort and to work toward an acceptable future urban environment of quality, distinction and continuing individuality in the developing society and history of America. As the only private non-profit organization chartered by the Congress to labor in the landmark vineyard, it accepts its enlarging obligations.

Let me suggest a few specifics variously involving government at all levels as well as private organizations and citizens.

Let us have a national survey to inventory landmarks of all types and grades of historic, architectural and unique community value. Certify these with accompanying legal protection for those so certified. We should continue to develop and protect historic districts in our urban areas. Compensation should be paid to private owners for losses incurred in preserving certified landmarks. Other devices should include tax relief (inheritance, income, personal and corporate, property, admissions) and scenic easements. Restraining covenants should be placed on historic properties; and an increasing number of them should be brought into public ownership. The FHA bank loan system should be revised. Zoning ordinances need strengthening. Machinery to veto government expenditures which

would result in destroying landmarks is essential; and I know of no government agency with money to spend which has not been destructive in this way.

State and local governments should be assisted by State and Federal loans or matching grants. Eminent domain should be evoked for protection rather than destruction. Favorable governmental administrative policies should be codified and enacted into legislation. Better communication and coordination should be established within branches of the Federal Government and with private groups. Federal support and assistance should be given the National Trust as recommended by the President in his Message on Natural Beauty and unanimously approved by its Board of Trustees. A program is needed to guide adaptive uses, and to stimulate private philanthropy.

It makes no sense to destroy the existing good, in favor of what may be spurious.

Mrs. MAUNTEL. We Americans are becoming more and more aware of the fact that our cities and towns must be beautiful as well as useful.

Through the efforts of the President and Mrs. Johnson, an awakened citizenry has been made conscious of the need for making beauty a very vital part of our daily living.

We have come to realize that we must create for ourselves and for our children a better environment in which to live, and we are now prepared to crusade vigorously for order and neatness as well as for charm and beauty in our land.

It is, therefore, important that all those things which add a cluttered look to the townscape such as stop signs, bus signs, street markers, and so forth, should be placed in a desirable and orderly manner and should be of good design.

Utility wires should go underground, light fixtures should be designed with beauty of appearance in mind. Even fire hydrants and trash containers enter into the over-all picture and can be built with eye appeal.

As a real lift to the townscape, tree planting programs should be carried on in all our towns and cities. On Signal Mountain in Tennessee, as a result of a quarter of a century of planting, hundreds and hundreds and hundreds of dogwood trees were recently at the peak of their blooming period. They envelop the city in a cloud of creamy white blossoms. And I have seen redbud plantings in an Oklahoma community lifting the community from the drab monot-

ony of a prairie town to the heights of real beauty. Not only the planting of trees should be stressed, but flowers also, for color in the townscape.

Recently, a New York woman urged the planting of masses of flowers where masses of people passed. She was instrumental in the planting of flowers right down the center of Park Avenue. It was she who said that flowers to a city are like lipstick to a woman—they just need that touch of color.

Do not underestimate the touch of color to the townscape. Landscape design schools and civic development conferences, trained national councils, State garden club members should be leaders in community beautification projects. Such informed persons then serve intelligently as members of park boards, highway commissions, schoolground committees and the like.

Industry can contribute in a financial way through grants to garden clubs to help establish parks and greenbelts and for planting projects of all kinds. Industry has a major effect on what this country looks like. So industry should be encouraged to help. Perhaps the internal revenue structure could be revised to see what changes could be made to give greater incentive to industry in its efforts to help improve the quality of the environment.

Through junior garden programs, youngsters are taught to garden and are trained to appreciate the beauties of the world about them. Many city children today have no chance to experience natural beauty. Through education and appreciation of beauty, beauty is brought about. This is necessary if we expect the next generation of Americans to support the programs that we are now planning today.

Mr. Rockefeller mentioned this in his talk this morning. The teacher should be better trained to bring a knowledge and an awareness of beauty to the youth of this country. Much more could be done to emphasize an appreciation of natural beauty, good urban design, and the preservation of our historical assets.

Educating our children not only to be aware of beauty, but also to appreciate beauty is one of the finest investments that we can make in the future of America. The Federal Government should help educate the public, not only the very young, but the older citizens, too.

There was a 90-year-old gentleman of my community who was made aware of a blossoming tree and this led to other observations in

nature. He said to me with a bit of sadness in his voice that he was sorry that he never knew until he grew old that the world was so beautiful.

The National Council of State Garden Clubs plans to set up conservation conferences and workshops in the next two years, the first held at Jackson Hole, Wyo., from September 3 to September 8. The theme chosen is "Natural Beauty: The Follow-through." At this meeting, suggestions and recommendations coming out of this White House Conference on Natural Beauty are to be studied and discussed. We are so pleased that Mrs. Lyndon Johnson will be one of the conference speakers.

By actually following through with beautification projects, we hope to play a vital part in the great crusade of this present generation to help bring about the flowering of America.

Mr. HAMILTON. What is the image of beauty a city should have?

Those of you who are planners are aware of the work of Kevin Lynch on the factors of what he calls the image-ability of a city. Then there is Mr. Lewis' work in Wisconsin in identifying resources and Mr. Bacon's own work in Philadelphia. In Pittsburgh we tackled what we called the image of Pittsburgh. What we were trying to do was to identify, through an effective inventory, the concept of what that city is today, analyze its strengths and its weaknesses, its principal factors of beauty, its topography and the historic buildings that should be protected. We attempted to develop an over-all conceptual arrangement which could be implemented specifically by the improvement or revision of public policies and ordinances.

It seems to me, in looking at this question of beauty in a city, we need think not only in terms of our individual elements, but of the way they fit together. For example, one of the great strengths of Pittsburgh is the fact that there are many ethnic groups that created communities with beautiful churches. These churches and some of the housing of the individuals have unique qualities. In zoning policies, in the building code and in urban renewal such strengths should be built upon so that the city, in fact, maintains its unique qualities.

In Los Angeles, we do not have quite as many unique areas and yet we are nevertheless attempting to formulate policies which are aimed at developing beauty through local action. For instance, when someone wants a rezoning he must form, with his neighbors, a sort of special assessment district, and as a requirement for putting in a

new street or improving the street and street lights, he must also, for example, pay for the putting in of the street trees.

The kind of protection which Mr. Gray pointed out as so important in saving our heritage can actually be implemented through policies of a city's capital budgeting process, through changes and modification in the quality and arrangement and design of subdivisions through local ordinances, through urban renewal policies and public housing projects and other planning or house development and through changes in the building code.

We should examine most critically the key relationships between freeways, streets, and the total environment. The essentials of good design in creating excellence in urban forms and particularly vehicular ways, must be identified and followed. These include:

Good proportion: Too many engineering structures in this country are bulky and poorly designed.

Harmony of the road to its environment: Unfortunately, the engineers do not really concern themselves with the relation of the road or street to the environment. Adding a little more land to the acquisition or being much more careful in its gradient can make a road infinitely more beautiful.

The symmetry of the road relative to beautiful views: Look at the contrast between the New York Thruway and the New Jersey Turnpike. Focal points should be strengthened by the orientation of the road. Structures and grading should be either in contrast or in harmony; so many big highways and city streets build great and ugly retaining walls. Adjacent areas should be integrated into the roadway design so that we really have an effective development.

It seems to me at the city level, the county level, and the State level, through public policy changes, new ordinances and selling our councilmen and our legislatures, we can begin to implement specific policies of this kind.

Mr. YASKO. "Townscape" is a relatively new word in the vocabulary of design, but I expect that after this White House conference it will be a common word.

The design of a townscape must recognize the specific needs and qualities that make one place different from another. One of the most meaningful pleasures in a city is to encounter the shockful contrast between two contiguous places of different patterns and shapes, a contrast which was not artificially supplied through a science of town planning, but through genuine developments which contributed

to the city's formation, developments which were largely social and economic in nature.

Just as there must be good manners in buildings and in the relationship of these buildings to the environment, so should good manners be exercised in relating people to the area in which they live. We should not impose patterns upon people which are so unfamiliar as to make them unhappy. Nor must the monotony of endless, repetitive forms be imposed upon them, destroying the diversity of a city area which developed out of the social character of those who formed it.

Go home and look around you. See what community forms exist, what ethnic groups, and look at the economic situation. Unless something is done now—not tomorrow or next year, but now—the character so essential to the vitality of a city will be obscured and erosion will set in. Let us maintain the contrasting patterns and shapes of our cities and preserve their landmarks, historic and otherwise.

Let us also begin to police the decay in our city areas and side streets. Rows of trees and plantings cannot hide the rotting areas and the beginning of slums; we must remember that leaves fall in winter and that the gray, cold days will reveal the grime and decay hidden during the summer.

Mr. ECKBO. There is a series of steps which I think we will have to go through in order to develop a positive program of townscape development or urban design.

First, we must recognize that the quality of the environment is an important subject. It should be given front rank attention. It has not had very much of this until now.

When we speak of natural beauty and townscape we are really talking about the total landscape, including all its structural elements. The work of man is a part of nature. Beauty is something that results from the relationship between the observer and scene and is not something that is simply part of the scene. In other words, the observer participates in creating the experience.

I think the basic elements that mostly establish the quality of our urban scene are the series of relationships between buildings and open spaces, and pedestrians and open spaces. Of course, as you know, the buildings and the motor vehicles tend to take over and the pedestrians get crowded out. That is really the central design problem in all our cities.

Quality today can only be produced by the full use of the conscious design process. This is more than a planning process; although it includes planning, it also involves positive, creative action. It is essential that the design process be invoked at the beginning and not come after many decisions have been made. It must encompass the total area under consideration and must be involved with the continuity of space and time.

We have to concentrate on the autonomy and responsibility of the designer. The city has to become a client of good design. We are going to have to remove a lot of arbitrary, negative restrictions which limit the design process on the theory that it is not reliable. Standards, codes, rules and regulations are essentially efforts to bypass design. Instead of these, we must obtain competent personnel to perform design and require them to police themselves in a responsible way.

We must realize that quality in the townscape is more than functional, utilitarian, scientific, or rational. It is also poetic, lyric, romantic, classic, subjective, intuitive—all those words that are so hard for practical people to live with.

Trees are a measure of urban culture and liveability. Their requirements are similar to the requirements of people, in light, air, and space. But you cannot salvage an urban environment by squeezing trees into it. The trees have to be an integral part of the original planning, which is something we rarely see.

If you look at general education in America you will find a lot of material on the quality and quantity of the social environment and on the quantity—but not the quality—of the physical environment. Yet, taste and interest in the quality of the environment is an acquired factor. We are not born with it and we cannot expect the American public to become good clients of urban design unless material is introduced at all levels of their education to help them develop this interest.

I think, finally, that we need in all urban areas what might be called a community development agency, which might be a new body or might develop from a municipal planning body. This would be concerned in a positive way with all elements in the local landscape, not in a fragmentary way as, for instance, redevelopment agencies are. It would be concerned with the future rather than the past, although not neglecting the best of what now exists.

Mr. SLAYTON. I have noticed there has been no hesitation at all on the part of local officials to come to me and suggest revisions in the urban renewal program, and I have noticed no timidity at all arising out of any worry about offending Federal officials.

Let me say I do have a worry about offending them.

I would like to pick up where Mr. Eckbo left off and talk basically about the city organization which is necessary to carry out a beautification program. We can sit here and talk all day, but unless there is an adequate government mechanism to carry out our plans, we will not realize them.

Mr. Eckbo has suggested some kind of development commission. This is an excellent suggestion and I would like to expand on it.

First, you have to have a local citizenry which is really interested and really pushing their local officials very hard to get something done. You must then have the public officials themselves. As Mr. Eckbo said, they are clients; they are the ones who make the decisions on what is going to be built, how it is going to be built, and what its design will be. It is important that they understand the importance of beautification and of good design. We need education for public officials as well as for the public at large.

But public officials and the citizenry are not enough; we must have the professional, who understands design—the landscape architect and the architect. As employees retained by the public officials, they are the ones to come in and prepare the designs we are talking about.

With public officials, the citizenry and the professional, there must be developed a really positive program for improving the townscape and improving urban design. It seems to me that such a program must have three subprograms; I will skip through them very briefly.

First, each city has to have an urban design plan, something like Charles Blessing is trying to prepare and is preparing in Detroit. L'Enfant had a design; Burnham had a design plan for Chicago and I guess Mr. Hamilton is going to get a design approach plan in for his city.

In addition to a design, it seems to me, a city has to have an urban beautification program. It cannot just say it would like to have urban beautification, it must have a program laid out calling for the specific things it wants in order to achieve beautification.

You know we have a housing act coming up which has been reported out favorably by the House committee, which calls for urban beautification in the open space land program. I think there is hardly a city in the United States today that is geared up to begin

to spend that money except for Mr. Bacon here who wants to plant those 2,000 trees. He will accept that in a minute.

We have to have urban beautification programs that talk about plans for tree planting and the creation of the plazas and the building of fountains and the building of the malls and the restoration of river fronts and waterfronts. No city really has this now. This kind of an over-all beautification plan has to come out of the city planning commissions. It cannot be a hit-or-miss proposition. It really has to be a comprehensive approach to this problem.

Finally, the third prong of this program is the community development organization. There has to be some organization that is concerned with coordinating the things that are done within an urban space.

We have example after example of what I call sibling strife among departments in a city where each department designs its own signs and its own lamp posts. These are then jumbled together (I guess "assembled" is a better word) with no relation to the over-all design.

We have to design areas as a unit, and there has to be an organization within the local government that has the authority to see that these areas are actually designed, not just assembled.

In summary, it seems to me that the city, the town, the urban county has to have a three-pronged positive program, an urban design plan, an urban beautification program, and some kind of local organization that really will see that these areas are designed.

Mr. GUTHEIM. We have met in recognition of the unsatisfactory appearance of American cities. They are today the homes of most Americans, and here will be raised and formed the future generations that will make our civilization. Our concern must be to create urban environments for the Great Society.

Too many American cities look alike. To this monotony we must add the large scale of our cities. This standardization and impersonality of scale is largely a product of industrial circumstances which we have not yet tamed and redirected to humane ends. Until such redirection is accomplished, the quality of our cities will not only continue to destroy their visual character but their social character as well.

Before turning to the practical steps to improve the appearance of our cities, let us acknowledge that the basic conditions of urban life in the United States today prevent any sentimental return to the simpler patterns of earlier days. We must start with big industrial

cities—and make them fit to live in. The American city has a spacious quality and at best incorporates a natural framework and landscape pattern that runs into almost every block. This pattern of warp and woof, of buildings and nature, is most decisively expressed in shade trees. These are not only the ornament of our streets, public squares, and parks, but run through all open areas of cities. The planting of large shade trees must become a paramount objective of all those who would improve the appearance of cities, and it is the main hope for any early redemption of the lost character of American cities. A prompt start should be made to improve and coordinate the technical processes of large scale, mass moving of big trees, and to reduce the costs of such operations.

At the metropolitan scale, big trees establish the natural framework of cities, like rivers, and hills, and carry it into each street and open space. But the design of those most intimate and intensively used areas must succeed in coordinating all elements of these decisive features. Urban design today is frustrated by the divided responsibility for trees and park planting, the design of streets and sidewalks, paving, public and private buildings, shopfronts and signs, lamp posts and mailboxes, litter baskets and light fixtures—all the fine grain of street furniture that goes into these public living rooms. To introduce a kiosk or a bus shelter is to add to this chaos, not to clarify it.

Streets and public open spaces of special character demand a kind of systematic and continuous design coordination that will come only from a design center established for this purpose. Recognizing the human scale and more careful detail of townscape, a design center should work with architects, landscape architects, planners, industrial and interior designers—with all who are able to contribute to townscape design. It should work to express the needs and coordinate the demands of all Federal, State, and local government agencies which post signs, specify materials and fixtures, determine spaces and relationships and uses. It should work with manufacturers of lighting equipment, fireplugs, paving systems, baskets—with all whose products hope to be used in these areas of cities. Design coordination is the object, and without it our cities will be a vast collection of separate items, a junk pile in the course of creation rather than the unified and beautiful areas we seek.

The creation of such a design center, a public, nonprofit institution of imagination and flexibility, should be undertaken by the great

professional societies of urban environmental designers which should safeguard its public character and high aims. Working with them should be the public agencies whose operations would be made more efficient and economical as well as more purposeful, and the many industries and firms which contribute to the creation of the urban environment. The Federal Government can assist such an effort with grants and specific support for its activities and educational program. The Highway Research Board is an example of such relationship.

Questions and Discussion

Mr. BACON. Mr. Gutheim's proposal for a central national design center in which our best designers work with the manufacturers that produce the objects in our townscape also raises the question of coordination at the local level. Here, we must deal with the street department, the State highway department, and a multitude of other agencies. This, I think, goes back to the suggestion which Mr. Slayton made to develop a local unit of government to work on this coordination, including the question of signs. The panel felt that it would be very desirable to institute a Federal program with Federal assistance with funds being made available to stimulate and aid the local work that would have to be done to receive and effectively apply the products of Mr. Gutheim's national design center.

Mr. SLAYTON. You have had that assistance for beautification over the past.

Mr. BACON. This is outside urban renewal areas.

Mr. SLAYTON. It relates to any urban renewal area.

Mr. BACON. If you administer it that way and the cities can respond, perhaps we can achieve what you are driving at.

AARON LEVINE. I think the problem before us might be oversimplified by the analogy of the lipstick. Natural beauty might be applied just as a cosmetic. The point that Mr. Slayton made goes to the heart of the matter.

It is somewhat conspicuous that we have attention to the problem at the Federal level, whereas the policies that will really carry it out are at the local level. It is our local city councils and zoning boards of appeal who must decide the highest and best use of the land which, in turn, affects natural beauty.

I speak as one who just came from a very difficult problem affecting the slopes of Diamond Head Crater in Hawaii. High-rise apartment buildings are being urged as the highest and best use of the land. I think that the problem is how we can best convince local officials that the policies for preserving natural beauty have long range as well as immediate importance.

MARVIN B. DURNING. We citizens will have to do the convincing at the bottom level. However, I think we just have not the full scale of the problem in mind unless we also involve Federal agencies to take a look at the over-all effects of the various Federal programs.

The President is talking about rebuilding America in 40 years. Only a massive, an over-all dedicated attack under Federal leadership can meet that kind of a challenge, and to do that, we propose, some of us from Seattle, that legislation be enacted to make it a precondition of all of the Federal assistance programs affecting the urban environment that there be developed by the local community an integrated plan for guiding the growth of that community. This plan would include action programs affecting air and water, utility lines underground, highway design, billboard control, scenic easements, urban design plans, rapid mass transit, sign controls, and building parking and open spaces.

I think if you cannot get the money without pulling yourself together there will be some incentive to pull yourself together.

MR. SLAYTON. To pick up your phrase, put it all together, it spells help. This kind of an approach is one that has to be thought out very carefully in terms of where you are going to do the most good. You can have a requirement of that nature, very stringent, just as you outlined it, and it will not produce anything in the way of encouragement to cities to rebuild, to have good design, to plan for orderly growth, so forth and so on.

We do, at the present time, have Federal incentives. We have requirements and Federal incentives to get cities to do certain things, requirements in terms of local programs and urban renewal. We also have a planning assistance program which is aimed to assist cities and metropolitan areas to plan themselves in a very orderly way. The things you have described are eligible expenditures under this program.

It is just the old question of the carrot and the stick and how you produce the best results.

WILLIAM SCHEICK. I was glad to hear the comment that the professional societies should take some leadership in this.

The American Institute of Architects is going to strike out on its own this year with a war on community ugliness through our 158 chapters. We have made a movie which we hope many people will see. Mrs. Mauntel, we would like your garden clubs to be sure and see it.

We think it is most important in public education to put the tools for action into the hands of local people. There must be a complete understanding and a knowledge of local regulations and ordinances and other things which make action possible. We have been surveying the country in order to bring these together.

We find a great hodgepodge and it will be quite a job, I believe, to put these regulations together into a kind of manual or guidebook which will enable citizen action groups to undertake the job and carry it on themselves.

We have talked about this as a research program for Urban America, Inc. I see Mr. Hammer and Mr. Fagan in this room. I hope they will take this on and help our campaign in this way.

GLENN THOMPSON. I wish to register a concern about the agreement among the panel on the need for urban design. I am suspicious of this. It sounds more like the great curse of urban renewal where the curse is, it seems to me, that a plan is designed from the drawing boards and then it is imposed upon the city. It doesn't seem to me there is nearly enough in our discussion of what the city itself wants to be.

I warn us against trying to play the role of designing a good character for a delinquent boy. If he doesn't want to be as good as we expect him to be, he is not very likely to be so good.

Mr. SLAYTON. I am surprised at you because it is the people of Dayton who decide what is going to happen in Dayton in urban renewal. It is the city council that adopts the plan. It is the city that adopts the plan.

What have you been doing in Dayton to see that they adopt the plan that you say ought to be adopted? We don't say it. You say it.

ARTHUR J. HOLST. I think we have gotten some mileage out of some money we have spent, and I would like to share our experience with you without suggesting we have all the answers.

Mrs. Johnson pointed out this morning in her marvelous talk that the nice thing about this problem is that each individual can do something about it. In fact, that is the way it must be if we are going to plan intelligently for urban renewal, city beautification, or anything else.

In some of our cities in the Midwest, it is a problem of knowing what is good because we have been so long without beauty. There are generations that have not seen it. We felt that some of the wisest expenditures we could make would be to use money to send people in positions of authority—landscape architects, for example, folks from the Peoria City Beautiful Association, from labor, management and men in public life to see good things around this country and in foreign countries.

One of the practical results of this has come about because one of the members of this trip was the chairman of the Public Building Commission which was building a new courthouse. The County Board of Supervisors were drumming the tub to use two-thirds of the area left beyond the building for parking.

We hope that if any of you come to Peoria in the next year you will stop and see a beautiful landscaped courthouse with night-lighted fountains—the direct result of some of these expenditures to let people see things so that they know quality when they see it.

I think setting up a nonprofit corporation to send people who will make decisions at the local level out to expand their own horizons is one definitive action which can be taken.

HAROLD SCHICK. Mr. Bacon mentioned planting 2,000 trees. We will be doing the planting, I assume. This is news to me. We will be with you, and just to carry the point further, Mrs. Mauntel said we hope to have a little perfume in our plantings and put some flowers in the downtown area. We think we can extend this planting into the downtown area with some help when our budget comes up for review.

NATHANIEL OWINGS. I have had the privilege of working with Mrs. Johnson to beautify the Capital City. It is a good example and should go on the record as a case where through grass roots action, with no Federal or District financial support, enormous strides have been taken.

I would recommend that this type of operation be put into action in every city and every town in the United States.

It is always a lot of fun to get together where everybody agrees and talks to each other, but in all of our city we have a hard core, probably 90 percent of the citizens who are either apathetic or against what we call beauty.

We think beauty is almost a respectable word yet it still isn't in a good many areas of our city, and I am talking of the private enterprise level.

My recommendation for the record is that such a conference as this with similar panels be directed toward the financial community of the United States. If you think about it a minute, the great financial organizations such as the insurance companies literally decide the fate of most of the private building that is done in the United States of America. They are the ones that should be talked to and they are the ones that have got to be convinced that beauty is a financially sound investment.

I would like to recommend to the President that GSA be given the power to select single architectural firms of high quality in each city where they do any building so that their building can be a catalytic agent for the beauty and growth of the entire community.

I would like to recommend that landscaping be given the same dignity as architecture in the evaluation of all work in all cities.

EDWARD STONE. Mrs. Johnson this morning said the search for a more beautiful environment must originate with the individual. This prompts me to say the following.

Obviously, the greatest common denominator in our environment is the individual dwelling.

I am afraid that, in this country, we have an Anglo-Saxon heritage. Our forefathers, Washington, Jefferson, were in effect emulating the English country squire on his large acreage. Granted that Mount Vernon and Monticello are very poetic episodes but—now, the spectacle of Mount Vernons and Monticellos are observed on 50-by 100-foot lots. If our ancestors had come from the Continent, from France, Italy, or Spain we would have quite a different set of standards.

Anyone who has motored through France has seen that villages are built compactly and permanently, wall to wall, with privacy obtained in cloistered gardens at the rear. They have seen the hill-top towns of Italy built in the same way. In Spain you see houses built around cloistered patios which has its origin back as far as Pompeii where there were the traditional atrium and courtyard.

Houses were wall to wall and built of permanent materials which means the countryside is preserved. In other words, a compact village and open country.

I do not want to talk too long, but let me talk for a second or two more. You are all familiar, if you fly over the cities of this country, with these millions and millions of little worthless, expedient, wooden boxes all placed on dangerous roadways involving extended utility lines and complete loss of that precious commodity of privacy. You reach the point where you can shake hands with your neighbor out of the window.

This is all wrong, needless to say. How can we plan cities like that? Take the city of Bath, England, which is, in effect, a city where you see great monumental crescents in open countryside, but which are really row houses of a high order.

Now, row housing is a dirty word, but it makes so much sense. Unfortunately, our row housing was all done as an economic expedient.

My question is how can we change this pattern? I have talked, for instance, to large developers, Mr. Levitt on the east coast and Mr. Eichler on the west coast—and all wish to change this pattern. Granted, a single-family dwelling is a mass-produced thing like a Ford automobile, but even the developers are willing to re-tool and change.

How, may I ask, can we stop and change the pattern of the single-family dwelling?

I grant you this is like being against God, mother, and country, but it is all wrong.

PATRICK HORSBRUGH. Under the terms of townscape may I make the special plea for the need to study the social and therapeutic values of water and for the ecological and local climatic effects of water and for the visual and economic benefits of exposed water.

Much has been said in favor of foliage. More needs to be said on the study, value and vitality of water in conditions of high population pressures.

WALTER REUTHER. I had the privilege of hearing President Johnson's inspiring address at the University of Michigan when he called upon Americans to join in the building of the "Great Society." I was most impressed when he said, "As members of that

Great Society, we would need to be more concerned with the quality of our goals than the quantity of our goods." That is what this conference is about.

This conference is about how a free society, within its value system, can harness the rising star of science and technology to provide the higher and higher levels of economic abundance, but also use that abundance consistent with basic human values to satisfy both man's material needs and the needs of the human spirit.

To me, this conference is about how we build a tomorrow in which we can have not only more bread, but also more roses. Satisfying our material needs is a very simple thing with our advanced technology, but if we stand committed almost exclusively to the expansion of man's material well-being and neglect his spiritual well-being, then I think we will fail to achieve that "Great Society."

What is our basic problem? As I see it, it is summarized in the remarks you made, Mr. Chairman. You said because a sewer collapsed in Philadelphia you had an opportunity to build a garden path and you wanted to make that garden path the way garden paths should be, with flagstones and with nature. Instead of that, you got blacktop.

Why is it that we get unlimited blacktop? It is because we have limited budgets. We have limited budgets because we give lip service to our value system, but we are not acting true to those values.

If we are to build an America in which bread and roses can be achieved in their proper balance, not in the lives of a few, but in the lives of many, then we have a practical job of raising the level of understanding of these intangible, human values that we associate with beauty.

The problem is not that we lack the know-how. We have plenty of know-how. We have plenty of resources.

Our problem is that we have not, as a nation, accepted these values and prepared to commit ourselves and our resources to their achievement.

I think we have a tremendous job of public education and I hope that as a result of this conference and the great national attention that will be brought to bear upon the problem, that we can mobilize the trade unions and the churches, and the other great organizations.

If we do so, public planners, architects, and other people who really determine the physical environments of our society will respond to the discipline of an aroused public understanding. I believe that this is the key to whether we can build the Great Society in which man can have both bread and roses.

GEORGE HOWIE. We in the Institute of Traffic Engineers represent the profession which provides traffic controls, to some of which you may object. Actually, there are national standards in the field of traffic controls sponsored by such groups as the American Municipal Association, American Association of State Highway Officials, National Association of Counties as well as by our Institute of Traffic Engineers.

Two-thirds of all the traffic control devices to which you object were installed in violation, in some manner, with those national standards. Some are obsolete; some are substandard; some are non-standard; some are badly maintained, or did not belong where they are in the first place because they were put in without adequate warrant for their need.

Well-designed highways and streets, do not require as many traffic control devices as have been put in under local pressures.

We recognize and we are shoulder to shoulder with you, that well-designed, clean highways certainly encourage good traffic conditions and require only a minimum of traffic control devices.

The worst situations that we encounter are where there is a vast clutter of hamburger stands and all the other things that go alongside the highway. These have not been properly controlled.

I would request that when you go home you see that your local authorities do abide by and do use the national standards for uniform traffic control devices and put in those devices only as they are warranted.

One of the important things that result is that when a standard device is used, it has target value and creates instant recognition, so that a vastly large sign, an unusual sign, an ugly sign is not necessary. A properly designed device will fit into the landscape reasonably well.

N. E. HALABY. I think the mere calling of this conference has encouraged men like Slayton, Yasko, and others in the Federal Government who want to make beauty a part of design. When you get right down to it, the Federal official is not normally brave enough to take beauty in as a factor. He is not concerned so much with the excellence of the design as he is with being safe and sure that he

will avoid the terror of public error. The interest of the President and the First Lady is a great inspiration to him.

I think another problem is that men in public position who are concerned with design are not elevated or protected by their political employers. If they are not good administrators, give them an administrative assistant to take care of the paperwork. If they are not good budgeters, get a budgeter who has a little taste. If they are not willing to innovate, then they are really obsolete.

We in the Federal Aviation Agency are primarily concerned with public safety, but I think it must be dynamic safety. We got a man to design the control tower for future years. We did not get a man who is a mechanical engineer, to build the least costly tower, but we got I. M. Pei to build the most perfect functionally. My predecessor, General Quesada, chose Eero Saarinen to design a system of safety and convenience around the airport. I do not agree with where he located the airport, but I do agree with two very important things. He chose top quality and gave them freedom to assist and design all the way from the access roads to those 80 steps from the seat of your car to the seat of your plane. That is what can be done if there is courage in the public trust.

I think well of the idea of getting double duty out of some of our public places. The Union Station here—and I hope Mr. Hamilton in Los Angeles will agree—would be an ideal spot when roofed over for a heliport. We are going to have metroports in a society of 225 million in 1975, beset with perhaps 110 million automobiles.

Finally, it seems to me that we can do a great deal about noise and ugliness at airports. Mr. Eckbo and other landscape architects are just as important to the Great Society as the mechanical and civil engineers. With their brothers in the architectural business, they can build hush parks around airports, beautify the approaches, attenuate the noise and make some real improvements.

Mrs. JOHN M. KENNEDY. Two years ago we organized a beautification council in southeastern Michigan comprised of Oakland, Macomb, and Wayne County, and including Windsor.

I am going to submit a copy of the bylaws to the panel.

We met monthly on what our cities can do to promote programs to better their communities. However, we feel that in the two years we have been organized that we have missed our big-

gest opportunity, that of putting the programs starting in the kindergarten to continue all the way through the colleges.

Our present generation is not participating in these programs. We can work together and start right in on the elementary grades and teach our children not to litter, to plant trees. They will take the message home, and I think we will have a better United States.

Mrs. ELIZABETH WEIHE. We have our citizens meeting together, people who have never met in one room before and it looks as if we will have to have a new auditorium. I can assure you it does work. We are sometimes called the bedroom of Washington. Mrs. Johnson looks our way, so we have to get busy.

MICHAEL DOWER. May I say first it is a privilege for a group of us to come to this country. I would like to make three points.

The first is about trees. In Britain we have started taking up the U.S. technique of planting trees. We are also starting to bring them in in ways which have not yet been extensively used in the United States, by taking trees not from nurseries but from the woods and forests.

I am struck in visiting America by the fact that so many of your cities have great woods right next to them where anyone could bring trees without the expensive preparation over the years necessary in nurseries. I would think you could set yourselves a figure of, say, 10 million shade trees for the whole of the United States, each city bringing from the woods and forests around it those trees which are native to its region and so thereby bringing regional character into the city.

The second thing I want to suggest, which we have used with effect in Britain, is that these trees are only seen as one side of comprehensive improvement schemes in towns. We take an area in a town and we completely facelift it at one time—utility lines, signs, shop fronts, street furniture, the whole lot at one time. The amazing thing is that the pressure of opinion and of simultaneous action forces people to do things which they would have no incentive to do if they were asked to do them in isolation, which would be rather like asking one gangster to disarm. These schemes are initiated by the Civic Trust, which is a private national organization financed by industry and concerned with increasing the beauty of British towns and countryside.

Now this could easily be applied to any part of main street

America or side street America, not just, say, to Colonial Williamsburg.

The third thing which Mr. Gutheim suggested was the design center. We in Britain already have such an operating unit run by the government. It is on a more limited scale than he suggested, but nevertheless the germ is there.

Basically, it is a proving agency for designs for street furniture and other items which are used outside as well as inside our homes. Organized by the Council of Industrial Design, it is substantially paid for by income from the people whose designs are approved and, therefore, it is not an expensive program. There is a display, and government grant-aid is given only for items of approved design. I don't know whether the same thing could apply here.

This design center is based in London and has regional offices throughout Britain in the major cities. I imagine you would have to do this by means of regional offices in this country, too.

ROBERT KATZ. I think it is clear from many of the comments made today that we are reflecting a national concern, whether it be with our lack of trees or the ugly condition of many of our communities.

I would make one comment on this. Let us not make the mistake of equating a national concern with the need to formulate national standards for beauty. Instead, I urge that the Federal Government's concern for a more beautiful country be translated into a multitude of individual local programs.

The distinction between the necessary broad design guidelines which might be set at the Federal level and the precise plans that are drawn locally should be sharply drawn in any program that gives grants for urban beautification and improvement. I think this is imperative, Mr. Slayton. Unless we make such a distinction I think we run the risk of building a new national monotonous landscape under the banner of beauty.

Mrs. ELINOR GUGGENHEIMER. At the risk of distressing Mr. Reuther, I am surprised that there has not been more emphasis placed on the defacing of our cities by automobiles in general.

I am a member of the New York City Planning Commission. We have, at various times, in granting permits for parking lots practiced what I would call "Arboreal Blackmail." We have been able to get

hedges and trees, screening off the parking lots and gasoline stations and junkyards.

As one approaches cities we are faced with the depredation of the automobile. The screening of these automotive services and facilities by various kinds of landscaping techniques can be accomplished. Perhaps there are some suggestions as to how we can do it on a national level.

AUGUST HECKSCHER. I think if I were going to say anything on this it would be in the nature of a warning rather than a summary.

There is a great danger in discussions of this kind that we think of beauty in too narrow and too conventional a sense and that we think about cities as they have been rather than as they must be in the times ahead. If, as President Johnson has said, we are going to rebuild America in the next 40 years, and it is going to be a different looking America from anything that has existed before, we are going to need wholly new standards of beauty.

I am all in favor of trees, for example, but I must say I was somewhat surprised by the exceptional emphasis placed upon them in this meeting and by Mr. Gutheim in particular.

I am all in favor of what Mr. Stone has said in regard to town houses as opposed to the individual houses, the small Monticello palaces placed upon their 50- by 100-foot lots. But if we are really thinking about the new scale and the new America, it seems to me our concepts of beauty must be somewhat different from these and somewhat more novel.

I would guess, for example, that the row house is going to be only the expedient of a moment in time and will satisfy our requirements only for a passing instant before we have to go into wholly new forms of dwellings that are going to satisfy the immense population and the immense pressures towards urbanization within this country.

We will have to break away from the row house into some kind of high-rise habitation and in those we will have to find our beauty in the same way as with regard to trees.

When you have the old-fashioned street, it is important to line it with trees, but the real question is are we going to have the old-fashioned street?

I think the time is past when you are going to have streets which fulfill the functions that have been traditional functions of bearing traffic, of carrying pedestrians and, ideally, of allowing

those meetings and discussions with which we associate democracy down from the days of the Greeks. The man in the street, in other words, isn't going to exist any more, I suppose, and we will have to have a different kind of man and, certainly, a different kind of gathering place.

I think it is very important that we think about the functions we need in our cities and that then we find the wholly new forms which are going to meet and fulfill them.

That, really, Mr. Chairman, is what I had in mind. If we are closing now, I would rather think we are just beginning; that we could consider before we close some of these newer concepts and how we can create beauty in a society which is going to be increasingly dominated by great masses of people and by unique technological methods and processes.

Statements Submitted for the Record

MRS. ERNESTA D. BALLARD. The people at this conference are leaders in their communities. They were invited to come because they share with President and Mrs. Johnson a deep concern for what is happening across the land. Our efforts to stop the spread of ugliness, which have been given a tremendous impetus by this wonderful conference, will be picked up and carried on by thousands more across the country. Some of these people, through no fault of their own, are pitifully unsuited for this job.

On Friday of last week, two officials of the General Services Administration in Philadelphia came to me for help in the selection of trees which they were about to order for placement in redwood tubs outside some of the most imposing Federal buildings in Philadelphia. This was being done in order to comply with a directive from Washington to beautify those buildings, inside and out. Anyone who knows anything about plants or cities knows how soon this kind of misdirected effort will become an ugly eyesore. If we are to pass the responsibility for beautification on to people in positions like these two men, we will have to find ways of guiding their efforts into suitable channels or we will find ourselves engaged in a ludicrous exercise contributing to the further defacement of our cities.

VALLEAU C. CURTIS. This is in reply to the statement by the gentleman from Great Britain who suggested seriously that we dig trees out of the forests and plant them in the city.

This statement is ecologically unsound.

Trees growing in forest areas have developed from a small tree under shaded conditions. A tree removed from such an area to a full sun environment is vulnerable to sun scald—splitting of the bark. In moving a tree from a forested area, a large portion of the root system must necessarily be destroyed. The lack of sufficient root system plus the sun condition creates a weak tree which has a very poor chance of survival unless it is severely pruned, which would destroy the shape of the tree.

We in the nursery business recommend the use of smaller trees, if economy is the basis for the suggestion. We recommend using nursery grown balled and burlapped trees.

The smaller well-rooted nursery grown trees recover quickly from transplanting—the results are vigorous young trees that will stand the adverse city conditions.

ROBERT H. EYRE. Let's reforest our cities. Fifty years ago conservationists sounded the cry that it was necessary to reforest our timberland which in many areas had been completely cut down to provide lumber for our growing country. Until this time it was thought that our forest reserves were so vast that they would never be depleted.

Much the same thing has happened within our cities. What at one time were rolling hills clothed with a variety of trees are now barren of vegetation. It is now time to apply the same standards of conservation and reforest our cities.

Trees properly used constitute an important design tool for unifying diverse architectural elements within our cities. They provide scale, texture, and color and give a sense of order and restfulness.

Trees act like a filter to collect particles of air pollution and also freshen the atmosphere.

1. An aggressive program should be initiated through the use of trees to screen objectionable, blight-producing areas such as junkyards, billboards, and the like.

2. This will require large numbers of trees and an expanded nursery production of shade tree stock. Why not put to use idle forest nursery capacity owned by State and Federal forestry agencies?

Trees should also be made available on a cost-of-production basis to promote wide citizen participation.

3. Production of shade trees on an expanded scale for urban beautification could well be emphasized in the Appalachian region, an economically depressed area but also a region close to large centers

of population and well suited to the production of shade tree stock.

4. In carrying out all phases of this program the possibility of full use of the Job Corps and other programs to provide employment and training should be investigated.

5. To implement this program, the desirability of reemphasizing Arbor Day should be considered. Tree planting by children will help to instill respect and appreciation of the values of parks and open spaces.

Reforestation of our cities would provide the acoustical cushion to absorb the roar of the city and again provide a haven for songbirds and small animals for the enjoyment and education of the city dwellers.

RICHARD FANNING. These are my recommendations on the preservation of community shade trees.

Although it is fully agreed that assistance should be given to well developed tree planting programs in communities, it is equally important that measures be taken to halt the loss of certain tree species which are quickly disappearing due to diseases such as Dutch elm disease and sycamore canker.

The Townscape session stressed heavily the need for shade trees in the community and strongly urged the planting of large trees, and yet each and every tree saved from disease is far more valuable than a newly planted tree.

A program is immediately needed to revitalize tree preservation programs in communities that have long worked in combating, on a local level, various tree diseases.

1. Initiate a massive and intense research program on effective shade tree disease preventatives.

2. Assist, through grants, in the removal of diseased trees which will, in turn, eliminate one phase of the disease cycle and thereby reduce the spread of disease.

JUSTIN HERMAN. Two recommendations are submitted:

1. The Housing and Home Finance Agency should establish a new element in its workable program requirements for community improvements. This would recognize design and beautification values in those activities of the city which lend themselves to aid under HHFA programs.

2. The Urban Renewal Administration of the Housing and Home Finance Agency should recognize the value (as noncash grant-in-aid) for exterior works of art, murals, fountains, statuary, de facto

public parks and plazas, etc., funded by private developers but enjoyable or useable by the general public.

PATRICK HORSBRUGH.* Much has been said in favor of foliage. More needs to be known about the value and vitality of water, in conditions of high population pressures.

A special study is therefore recommended of the social and therapeutic significance of water: the ecological and local climatic effects of water; the visual, auditory, sensual, spiritual, and aesthetic benefits of the need to expose water in its varied forms in the urban scene.

Whoever saw an ugly reflection? I plead that funds be allotted from a foundation or from Federal sources for the making of a comparative survey, an illustrated report and a film (28 minutes) in praise of water as an essential part of improved urban design.

In desert places, exhibition of water in even a minor display assumes something of a spiritual significance, as in a Persian garden. In lush environments where it may be used more freely, water provides a symbolic elegance and personal identification with the public scene. In any event, water deserves more adequate recognition and widespread uses within the increasingly dense urban enviria.

DONALD W. INSALL. Beautification programs always start with "Let's plant trees". We in Britain, used to make a mistake: until recently, we were forever planting, not trees, but small flowering shrubs. Small flowering shrubs are entirely out-of-scale with the modern urban townscape. Washington is incredibly lucky—you have real trees. Washington, please keep it this way. Other cities, please follow.

But trees are not the end of it. Beauty is not the same as beautification. Beauty is simplicity and truth; and a beautiful city is one with personality, well designed and planned, just being herself. Fritz Gutheim is right. Cities are as different as people. How can we help a city to express her special character and beauty? Not by drawing board planning, but first by sensitive analytical survey. Then by playing up every feature, every asset, every charm. By clearing away confusion, eyesores, muddle. By seeking and seizing every opportunity as it comes. You cannot do it with cosmetics, with flowerbeds, or even with trees.

First study and know your city!

*This is an extension of remarks made by Mr. Horsbrugh during the panel discussion.

To husband our resources well, we must first define (a) their limits, (b) their qualities justifying conservation, and (c) what deductions call for remedy.

The greatest assets of our towns are (a) their individuality, (b) special neighborhood and townscape elements, and (c) buildings of architectural distinction. Each needs help.

Conservation is only one facet of total planning. Conflicting claims of heritage, use, and change demand decisive resolution. Decisions are impotent without a competent executive. And executive agencies need initiative and incentive. Honor, encouragement, awards, profit, all have their place.

Given last, a program of education in appreciation, maintenance, and management, our cities can then earn and deserve our pride.

FRITHJOF M. LUNDE. There are a very few "Lyndhursts" in America; and few cities and counties have other than isolated examples of Early 18th Century, Post-Bellum or Eclectic residential architecture under the protection of the public domain.

There are, however, in the heart of almost all municipalities individual fine houses or rows of mansions on the fine or once-fine streets, usually of high quality construction, often architecturally significant or at least exemplary of the vigorous, exuberant forms of vernacular Gothic, Georgian, Richardsonian, Greek Revival, or regional styles.

They are generally in financial or maintenance decline, passing out of owning families, into the gray areas of urban blight or into conversion to funeral parlors, private schools replete with awkward fire escapes, or into dereliction for tax, probate, or area obsolescence reasons.

As the decades pass they will ultimately be (if they still exist) part of our historical heritage to a greater and greater degree. Even now, along with public buildings they are the only buildings of quality which most communities possess.

This proposal seeks to define a possible zoning-redevelopment framework in which government, institutions, and entrepreneurs singly or in concert can work to preserve this heritage in as many areas as possible.

"Mansion-Row Zoning" would be premised on the thesis that the better historical-architectural prototypes, and more particularly groups of them, where such exist, are vested with a public interest whether or not they are in the public domain at the time of their

designation. The provisions to be incorporated in enabling legislation would call for the creation of mansion zones, the intent of which would be to permit special consideration and broad zoning exemptions, particularly of use zoning, subject to the control of the planning authority or planning board. The functions of the appeals body would be restricted to staying actions. The mechanism of the ordinance would have to provide for selection of architectural examples based firstly on basic architectural worth, then, in order, upon state of preservation, location in the community, and lastly upon potential for absorption into the public or quasi-public domain or into a long-term redevelopment scheme; designation would be by an appointive body whose members would be designated as the official representatives of organizations in interest (that is historical societies, architectural societies, art historians, history teachers, horticultural societies, etc.) by the organizations themselves. The ordinance would name the participating bodies, with their consent; the language would be permissive and not mandatory upon the cooperating organization.

The heart of the proposal would be in the variation of the use aspect so as to permit, subject to appropriate safeguards, broad latitude in exploring ways to save the buildings on a sound economic basis. Governments as first priority purchasers can well afford to consider housing specialized agencies of a prestige nature in the kind of quarters which these proud or once-proud buildings represent.

Institutions could next be polled to see if preservation could be arranged by them—through purchase, bequest, long-term purchase options, installment purchase, or similar devices.

Private developments would be considered as the third alternative—and the most likely one in most instances. Individual buildings on large plots or groups of mansions on large or moderately large plots, so typical of these fine houses, would be designated as redevelopment districts (if private negotiation arrangements for the preservation-designated buildings failed), thereby bringing them into the public domain. Under the circumstances envisaged, cost write-downs of these redevelopment areas would not be required as the land so assembled would, if centrally located, normally be of higher value as a large parcel than any individual holding. The participating entrepreneur would first enter into a negotiation agreement with the municipality or county (or State) permitting him to negotiate for all or most of the properties in the designated group. Prior to

attempting to purchase or obtain options, he would have submitted for approval a general development schematic study which would establish the proposed land coverage, permitted uses, floor area ratios, and parking requirements of the scheme, the essence of which would contemplate the use of the mansions fronting these properties as executive offices of various concerns who would have the balance of their enterprise housed in an interior lot building attached by porte-cochere or glazed passage to the mansions. Such interior buildings would have to be thoughtfully designed so as to be compatible with the mansion or mansions, particularly if the interior building relates to more than one mansion. Parking requirements would have to be met, and mandatorily behind the front line of the adjacent mansion, thereby preserving the open aspect of the front lawns.

This proposal therefore couples landmarks preservation to urban redevelopment, aimed primarily at the smaller suburban municipality and county seat, although it could be equally applicable to metropolitan areas and State capitals.

It is further proposed that a sponsoring organization undertake the drafting of model legislation (unless it already substantially exists), and then enter into a sponsorship agreement with a municipality to undertake a demonstration project and the enabling zoning ordinance.

The language of the ordinance would bind any future owner to maintain not only the exterior of the building but the basic interiors of the important rooms as well, in a reasonable intact condition true to the architectural spirit of the building. Changes such as air conditioning, sprinkler systems, and so on, would be submitted to the selection board for aesthetic approval. Interior furniture respectful of the building would be encouraged so as to avoid the standard office look.

HAROLD LEWIS MALT. The roses and trees urged for the urban landscape will not long survive midst the weeds pushing up through the asphalt jungle. These weeds are hardy. They grow wild and unchecked. They never disappear. Blanketing the ground, they push up and pollute space. They come in many varieties: light poles, signs, traffic signals, and fire plugs. And they seem eradicable.

Members of the Townscape panel and others have suggested these weeds are a local concern. They say this has not been an area for Federal action. And in a sense this is so. The need, the desire, the action must originate at the municipal level.

However, the weeds will not be eradicated or controlled by local governments. They have neither removal techniques nor anything better to replant. These officials have neither the instrumentality for control nor the tools or techniques from external industry. For the suppliers of components have been either unconcerned with the problem or unable to cope with it. Perhaps this is because of the fragmented nature of the industry.

One group of manufacturers supplies only poles. Another produces only lights. Still other companies make signs. And different companies supply only traffic signals. There is no component interface. All these parts must be put together by the municipal people with blacksmiths' brackets and baling wire. The result is functional and visual chaos.

Therefore, Federal and institutional support of research is essential.

The immediate need is to develop performance criteria, to determine what these equipments should do.

Then a systems concept and approach to design and installation of street facilities is required. We must leapfrog the obsolete practices. We must redesign with advanced technology for America's future needs. This kind of research the Federal Government can and should support.

This research will show what can be done. It will result in new prototype systems and equipments. These will promise a new enlarged market to industry.

Manufacturers will be quick to seize upon and utilize the by-products of this research. They will soon make available these new systems particularly if the government supports their adoption in new urban projects.

Municipal administrators, directors of streets and traffic commissioners, will at last have available sources of better supply.

Then, indeed, will the weeds on the urban landscape have been controlled. The urban soil will have been conditioned to accept the trees Mrs. Johnson suggests we need. The weeds will not overwhelm the trees the citizen plants or the flowers he tends.

WILLIAM H. SCHEICK.* The American Institute of Architects wholeheartedly supports the President's objectives and his statements for great national programs to conserve and restore the natural

*This is an extension of remarks made by Mr. Scheick during the panel discussion.

beauty of this Nation. The Institute is especially concerned with all aspects of the nationwide movement which relate to urban and manmade environment.

As an immediate acceptance of its responsibility in this area, the AIA has launched its "War on Community Ugliness—A Great Environment for a Great Society." The resources of the 158 chapters of the Institute are being marshalled to conduct for the citizens of cities in all 50 States educational programs which will inform civic leaders and citizens of their opportunities to beautify their cities and plan for the future.

A 27-minute motion picture has been produced by the Institute entitled "No Time for Ugliness—An Evaluation of American Cities." The movie contrasts the beautiful with the ugly with scenes from a number of American cities. The selections include entrances to cities, waterfronts, intown and suburban housing of several cost levels, business districts, suburban shopping areas, public plazas, and restored historic neighborhoods.

The movie will be supplemented with brochures and publications to describe procedures by which civic action groups can carry out beautification campaigns. A major item of literature is to be a sample list of ordinances, regulations, and enabling acts which have been successfully used in various cities to attain objectives in civic beautification.

The Institute believes that this list will provide a major tool for effective and continuing action in all cities. However, the Institute's resources for complete research and compilation of such ordinances are limited. We have proposed to Urban America, Inc., that this would constitute an excellent research project for a grant by Urban America, Inc., from its foundation funds.

The American Institute of Architects will supplement its own efforts in the War on Community Ugliness through collaboration with other organizations and the government whenever opportunities present themselves.

Dr. J. HAROLD SEVERAID. Adequate urban development does not necessarily preclude a maximum blend of man with nature. In the long run wise planning can provide an acceptable compromise of both values. And nothing less than this should be tolerated by the citizens who have to live confined in a concrete wilderness.

No city should be allowed to develop as a slave to manmade structures. A city and its people could not long endure unless there is adequate open space.

CHAPTER 6

PARKS AND OPEN SPACES

1:30 p.m., Monday, May 24

The Chairman, Mr. SIMONDS. Fellow dreamers, you who have a vision of a more vital, more refreshing, more stimulating living environment; fellow crusaders, you who share an urgent compulsion to make this dream come true, welcome to this panel on Parks and Open Spaces.

It is fitting that this conference should be held in our capital city of Washington, where one finds some of the most beautiful open spaces of the western world.

This conference is symbolic. It is an historic underscoring of an awakened concern for our national heritage. Under the perceptive leadership of our President and his Lady, the tide is running as never before for the preservation and development of the natural beauty of our country and for the creation for our people of more beautiful highways, more beautiful countryside, more beautiful cities and thus, a more beautiful United States.

For this objective to be achieved, it must be approached with all the planning skill and idealism that can be applied.

One is reminded in this task that the great Kublai Khan who, in the planning of his magnificent city, Cambaluc, said: "We must plan here on these northern plains, a city with which men will find themselves in harmony with nature, God, and with their fellow men." And then he set about to do it. We can afford no less lofty a concept in the planning or replanning of our cities today.

Members of the Panel on Parks and Open Spaces were Arthur A. Davis, Charles W. Eliot II, Jane Jacobs, John O. Simonds (Chairman), Otis A. Singletary, Arnold H. Vollmer, Walter E. Washington, and Senator Harrison A. Williams, Jr. Staff Associate was Milton B. Davis.

Said Kublai Khan: "It is not enough to build parks in our city. Rather, we shall create our whole city as a park." And so today it is not enough to build open spaces into our cities; we must rather conceive of each city as an interrelated park, sometimes in tight compression and sometimes open and free, with homes, schools, factories, and institutions beautifully interspersed.

As we talk today about city parks and open spaces, we must understand their purpose. Open space with no purpose may be only emptiness. Knowledgeable urban designers know that to be significant, each space or complex must be planned so as to express and accommodate its function.

For example, if you were to build a play lot for a child, this play lot must be a plaything in itself, with bright colors, rich textures, symbols, things to put on top of each other, things to move around. It must have low spaces, high spaces, things to crawl through, places to stand on, things to stir the child's imagination.

Each space within our cities must be designed in size, shape, proportion, color, texture, and symbolism to express and accommodate its function.

How do we build a city into a salubrious environment? How do we build this magic environment for mankind?

The answer is simple. We build it thoughtfully, carefully, and expressively, space by space, place by place. And the sum of these places and spaces will be this more vital environment.

What are the functions of open spaces and parks? They are ways for movement of vehicles and pedestrians. These must be designed as ways, free-flowing channels for movement without friction. They are places, and these places must be planned as congregating places, each designed to express its function. If these ways and places together are conceived in harmony with the natural and man-made features of the city, then and only then is the form good. Then and only then is the city beautiful.

Our purpose today is not to philosophize. Our purpose is to develop a series of specific and creative concepts and suggestions for Federal, State, and local action.

I would like to start off with a few proposals. First, I suggest that an appropriate Federal agency initiate regional conferences and seminars on open space planning. They should be held again and again, around the country, where people who care can come together and discuss park and open space planning in depth.

We need a study of the economic value of urban parks, parkways, and open spaces. We seem to think that when you put land to park or open space use, you take it away from the city, that you take away from the real estate value of the city. I have heard a distinguished planner say that the future of Chicago would be grim indeed if it were not for the Cook County Forest Preserves, those great green rivers of parkland that flow through all of Cook County and around which much of the best development in the county occurs.

What do these parks cost the local government? The first band of property around the edge of a forest preserve increases in value because the park is there. It has been said that the increased tax yield on this first band of property is more than enough to acquire and develop and operate the preserves which attract the best housing, the best industrial parks, the best commercial areas, the best institutional development in the Chicago area.

I propose that the Housing and Home Finance Agency or some appropriate agency make a study of what open space and park planning brings to a city in terms of, not only economic value, but of all the other values as well. I believe that if such a study is made and the facts become known, there would be a drive to get more and more open space, to build more value into all of our cities.

I propose that the Bureau of Public Roads require that grants-in-aid be contingent upon more effective coordination of highway plans with comprehensive and open space plans of local governments.

I propose a permanent State commission or department on environment, so that at the State level there is some agency to coordinate all the many diverse open space, recreation, and conservation programs of the State.

I propose a regulation to preserve all streams and river basins to a 50-year flood level against development, except for agriculture, recreation, or parkway purposes.

I propose that flood plains be reserved for open space purposes and be used to build great greenbelts down the valley floors and up the streambeds, forming a green center for our cities.

Mr. DAVIS. I should like to use my time to identify what seem to me two principal requirements for seeing to it that our cities have—and hold—adequate parks and open spaces, and to suggest a few ways for meeting those requirements.

The first requirement is to make our urban parks and open spaces places that are worth going to; that provide fun, sparkle, color, stim-

ulus, and diversity to our lives; that contribute to the comfort and liveability of the city, as well as its beauty and design.

Parks that are not useful are not prized; they should enrich the daily experiences of people as well as contribute openness and green to the design of the city.

Smaller parks, in particular, are too often stereotyped, traditional squares or circles crisscrossed by diagonal walks, and equipped with a statue at the intersection, several drinking fountains, twice that number of "Keep Off" signs, a bit of shrubbery, some beds of annuals, and if fortune smiles, perhaps several lovely old shade trees. Lighting is likely to be by the same fixtures as for any street corner, and benches to be of standard design. Larger city park and open space areas show little more in the way of imagination.

Parks need to be comfortable and functional as well as green and beautiful and to serve the broadest range of community needs. Parks and park programs that work for people all the time, instead of serving merely as outdoor window boxes, enjoy the loyalty and affection of the community—and a parity position in the city budget. Let me suggest a few possibilities:

Family center parks in every neighborhood that are exciting and colorful places for youngsters, comfortable social areas for their parents and grandparents. Equip them with furniture and lighting that is gay and attractive as well as functional; make it possible to plant flowers as well as admire them, to wade in water as well as watch fountains. Neighborhood parks can add a recreation room to each house in the area, and do it beautifully.

Downtown parks, strategically located to ventilate the central business district, meet different needs—lunchtime picnics, places for shoppers to meet, rest, and chat. Here we would admire and use well-designed kiosks where one would buy flowers, or books and papers, or refreshments, or perhaps find colorful notices of forthcoming art shows, plays, and concerts.

An "Outdoor Room" for every public library. A bit of open space for reading and studying in pleasant outdoor surroundings, with seasonal flowers and shrubs, shade trees, pleasant little paths and quiet nooks, graceful furniture designed for the setting, perhaps facilities for exhibiting local art and sculpture.

Park-school areas. Not just enlarged school grounds, but a contiguous park site that can serve joint uses for school and park purposes, and for community, recreational, and social activities as well.

Determined efforts to light our parks properly, patrol them adequately, and take advantage of their natural setting to frame evening cultural activities—plays, concerts, art shows. How long are we to accept the need to fear and the need to avoid our parks at night?

Urban people have a vast interest in wildlife, especially song birds. This interest could be recognized by more intensive management of wildlife habitat in urban park areas. Why not have natural wildlife areas of a few acres, including perhaps a fishing pond for children, within easy walking distance of every city dweller?

Why not use parks and open spaces to dramatize the entrances to our cities? To highlight and enhance historic structures and public buildings with natural contrast and counterpoint? To open up vistas of the city, providing relief from monotonous urban development? To rescue waterfront areas from decay and incompatible uses?

The uses of city parks and open spaces are limited only by our creativity. If we will it, they can be not only beautiful in the formal sense, but sparkling, diverse, colorful, and exciting physical environments.

Federal programs can help. For example, since its inception in 1961 the open-space land program has made grants totaling \$44 million for 360 State and local land-acquisition programs in 36 States, totaling more than 136,000 acres of land in urban areas. These sites are being used for park, recreation, conservation, scenic, and historic purposes. We can also help to develop and disseminate ideas—in effect, provide a clearinghouse for data and information. Based on our experience, we can occasionally make suggestions as to alternatives for meeting particular situations.

The pending housing bill would broaden and strengthen our ability to assist. As President Johnson foreshadowed in his landmark message on natural beauty and in the housing message, a new program of grants is proposed to provide financial help for urban beautification and improvement. We would be able, also, to help in the acquisition of built-up lands in the congested areas of cities, and in clearing them for park uses. A new demonstration program also is proposed to support projects that can contribute information and experience about meeting urban needs for parks and open spaces.

But the Federal role is a limited one, and should remain so. The main burdens fall on State and local officials directly responsible to

the electorate for the quality of the urban environment. They in turn will rely heavily upon skillful and imaginative planners, architects, landscape designers, and other experts. But something more is needed—citizen support, indeed, citizen demand, for urban environments that are beautiful, pleasant, and varied. Such support is the essential ingredient, the base of the pyramid.

Citizen interest must have not only a voice, but access to expertise, and a means to communicate its views. Then it is capable of performing tasks that cannot be done well by government, if at all. No single force has greater capability for achieving the objectives of this conference.

Organizations like the Nature Conservancy, the National Trust for Historic Preservation, the Federated Garden Clubs, and the newly formed Urban America, Inc., have tremendous opportunities for enhancing the quality of the urban environment and the countryside. A disadvantage, however, is the very abundance and diversity of these groups, which makes it nearly impossible for them to operate together in a fully effective way. As a final suggestion, therefore, I would like to suggest that these organizations associate themselves in a way that will provide them with staff assistance, keep them abreast of what other groups are doing, and otherwise assist in mounting a unified and coherent attack on ugliness in America.

A practical advantage would be that these organizations, in concert with public agencies, could do much to develop local programs of urban beautification and improvement, a necessary prerequisite to receiving Federal assistance under the proposed urban improvement and beautification section of the pending administration housing bill.

Mr. ELIOT. If we are going to preserve or create beauty in our urban environment—and before we talk further about natural beauty in and around our cities—perhaps we should devote a minute or two to discuss these terms:

“Beauty.” Don’t be disturbed. The professor is not going to compete with Plato or Santayana in a philosophic discussion of aesthetics. But I do want to call your attention to some of the many aspects of “Beauty” which apply to our problems in the exploding metropolis. Among them are harmony, balance, sequence, and order.

I would emphasize “order” or man’s eternal search for a grand design—to find where he belongs in a fearsomely complicated world. We all want to know where we are and who we are. In our cities

we find our place in the street pattern and the street vistas; in relation to the topography and heights dominated by a building like the National Capitol; or in relation to the density and heights of buildings. In the future, as in the past, the shape of the city may be the key to order—and shape is defined by parks and open spaces.

The point about order is that it is the opposite of disorder and ugliness. It is the disorderliness of litter which so offends us, and the reliance on disorder to attract attention to advertising billboards. To reestablish order we need controls over billboards, greatly improved maintenance, police protection and law enforcement, and education to combat litterbugs and vandalism. And we have all experienced to greater or less degree, the costs and disadvantages of urban sprawl—or growth without shape or order.

The first necessity for the orderly and efficient growth and development of our cities—large and small—is shape and form. Which areas are to be developed and served by expensive roads, schools, and utilities, and which are going to remain open or with low density? The parks and open spaces define the shape of the city.

“Natural” is the other keyword in this conference. Mankind wants to sense order in what he makes and does, but he also wants to feel and know he is part of a natural order. As a physical animal, man is dependent on the natural and needs refreshment by recurring contact with living things. Too much of our cities is completely manmade and consists of inert objects. We need the contrast of living trees and grass, flowers and shrubs—and birds and squirrels and chipmunks.

You may remember that the father of the park movement in America—Frederick Law Olmsted—100 years ago said that the justifying value of a public park is re-creation as well as recreation, through contact with pleasing natural scenery.

In other words, the parks and open spaces in and around our cities are not waste lands or unused until they are built upon or covered with concrete. On the contrary they are the essential voids which give meaning to the solids. They are the essential contacts with the natural in an artificial environment. We have a gigantic task ahead of us to emphasize the positive uses and values of open spaces. Since we have become an urban people we have a special obligation to fill the gap in the lives of our children and grandchildren caused by their increased separation from the natural.

In this background, let us concern ourselves with problems and programs:

1. We must preserve what we have inherited against misuse, mismanagement, or diversion to highway, school, parking, and other nonpark uses. Federal grants-in-aid should, in both law and administration, make it unprofitable for States and cities to raid the existing parks and open spaces. We need help for local governments not only to acquire new open spaces but also to maintain the character and beauty of our parks.

2. We must act now—not next year or the year after—to save the essential sites and open spaces in and around our cities. The explosion is now. We need action from the Congress and the executive departments and agencies on pending bills and programs to expand authority and vastly increase the funds available, on appropriate matching bases, for acquisition of open spaces—in fee or by rights and easements.

3. We must immediately develop and exploit all of the various means for continuing privately owned open spaces in accordance with city and regional plans. However much we speed action for public acquisition of parks and open spaces, we cannot possibly keep the balance between what is built-up and what is left open, or maintain the shape and form of the urban area by public ownership alone.

Our national traditions of private ownership and responsibility can be invoked and new tools must be added.

(a) The private owner as custodian or trustee for property to be passed on enhanced in beauty and in value should be emphasized. From the start 75 years ago of the Trustees of Reservations in Massachusetts, organizations to hold “beautiful and historic places” and conservation and recreation areas have proliferated and expanded. They should be encouraged by governments at all levels, by tax deductions for gifts of land, easements, and endowment funds. The more these private trustee groups can be persuaded to do, the less public agencies will have to do.

(b) The tools for preservation of open spaces in private hands need sharpening and support by evidence of successful application. We need information on how we can use such tools as rights in land or easements, the legal bases for flood plain zoning or conservancy or open space zoning, the dangers in preferential tax policies and the advantages of tax deferral on classified open spaces. We need to disseminate knowledge of how contracts among property owners,

life-tenancy, lease-backs and other legal ways of keeping private lands in open space uses can be applied.

In summary, we must hold on to what we have in city parks and open spaces.

We must vastly increase public ownership and public controls over open spaces to give shape and form to our urban areas—and act now!

We must develop and use private action through trusts and with sharpened tools for preservation of open spaces in private ownership.

Mrs. JACOBS. A Federal renewal official has remarked (not publicly, but in my hearing) that the open-space program will be useful because it will justify taking city areas and removing people who cannot be dislodged otherwise.

If beauty does become another excuse to uproot Negroes, and another device to dismember neighborhoods coveted by developers—then we may be sure that beauty will get an ugly name.

Let us suppose, perhaps wistfully, that this crusade for beauty will aim at bringing pleasure and delight to all city people.

In that case, as far as parks and open spaces are concerned, the first order of business must be to reform park maintenance and operation. When we speak of beauty, character, or even usability and cleanliness, we are talking of quality. Park quality, unlike quantity, cannot be bought with capital grants. Park quality requires, forever and forever, good, healthy operating budgets.

I assume you are aware of today's typical deteriorations; neglected plantings, broken equipment, pockets of litter, disintegrated pavements. I assume you are aware of the dreary and humdrum designs that anticipate perfunctory maintenance. More parks has a nice sound, but what does it mean? Today it means that manpower and money already spread much too thin will have to spread thinner.

This does not mean we need be defeatist about affording more city parks and outdoor recreation. But it does mean that it is irresponsible to wish more parks upon cities that lack funds to maintain those they have.

I am proposing three interlocked programs: Employment, training and experimentation, all three to be financed—and generously financed too—by the Federal Government. Nobody else can afford to be generous.

Under the employment part of the program, a cooperating city would receive annual grants for park operation. In return, the city

would agree to maintain at least its current park budgets, and also to hire workers from the training program. The more trained workers hired, the larger the grant.

The training program would supply workers equipped with many kinds of skills and many degrees of skill. Trainees whose interest and capacity merited it, would have received advanced training and specialized experience.

This program would not work if it were only to supply menial labor. It would not work if it were cynically meant to placate angry, unemployed youth during the summers. It would not work if it were motivated by fear of the people, rather than confidence in the people. It would not work unless there were jobs open and waiting at the end of training. It must be a way of opening up permanent, genuine and responsible park careers—including careers that do not now exist. We need new blood, and new blood always comes from below.

The training program would use city parks leased by the Federal Government. These classroom parks would also serve, simultaneously, as experimental parks. While each classroom park were under lease, it would be done over in part or in whole without reference to existing practices and standards. Training would combine with the work of creating these experimental parks and learning to operate them. This would be training not for things as they are now done, necessarily; but as they can be done.

Experiment must be at the heart of our search for quality. And by experiment, I do not mean drawing up new sets of specifications. It ought to be a sin, if not a crime, to standardize the design, material or equipment of parks.

Today many park departments, imprisoned as they are in their low budgets and fine print, seem to have lost the capacity to want parks intended for more than minimal maintenance. Does the cheapest fence to maintain happen also to be the ugliest? Is one monster skating rink or pool cheaper to operate than five smaller, scattered rinks or pools? And no rink at all still cheaper? Is asphalt cheaper to maintain than sand or stabilized earth? Is grass a cheaper green than a garden? Is a concrete wall less troublesome than a slope? Is a Keep Off sign cheaper than building a good turf? The thing is decided. All kinds of possibilities are ruled out in advance. A recent English visitor, Lady Allen, noting the effects of such prudence and the mentalities of the people who are good at

it, has observed with scorn that American playgrounds are designed for administrators, not for children.

If beauty is only this year's bandwagon, let us have a good and virtuous time discussing it and then forget it. If beauty is to be next year's justification for renewal developers and highway builders, let us forget it even faster. But if we are serious, let us concentrate generously and urgently upon the operation of city parks, in the full understanding that this is expensive but worth it—worth it not only for the obvious advantages of good maintenance and loving management, but because this is the only way we can tap new reservoirs of talent and enthusiasm for city park and recreation work, and because this is also the only foundation for creating parks worthy of being maintained.

Dr. SINGLETARY. My role here today is to discuss as precisely as I can, the implication, indeed the specific assignments, of the present antipoverty program and the role that this might play in what is the general theme of our conference.

As you know, the Economic Opportunity Act was passed by the last Congress and the office that Mr. Shriver heads was established and is now operating in what, from close view, I can tell you is something like high gear. The law itself has a number of titles and I will not bore you with these, but I do want to say that there are several programs within the framework of that bill that should be of interest—possibly the work experience program, certainly the community action program, and most certainly two of the youth programs.

The first of these programs is the one known as the Neighborhood Youth Corps. The Corps is now in existence, having components in many cities in the United States. The idea here is to provide work experience for 16- through 22-year-olds in those areas of our social and economic life where urgent public needs are either being neglected or not fully met.

The enrollees in certain of the Neighborhood Youth Corps projects are now at work improving forest and parklands, landscaping areas bordering on our public highways, and in some cities are working on projects having to do with the grounds of public schools, settlement houses, hospitals, etc. They are planting, seeding, and clearing.

In Buffalo, N.Y., for example, the Neighborhood Youth Corps has a program working with and turning out landscape assistants who can, I think, look forward very confidently to employment.

In Newark, N.J., you will find a program salvaging trees in the city. In Oklahoma City, landscape assistants are busy. This is one program that is already underway in a large number of cities in the United States and where youngsters are actually working on projects that are designed to improve the local parks and open spaces.

The other program is the one that I am myself more conversant with, and that is the Job Corps.

The Job Corps is another youth program for the 16- to 22-year-old group. It is different from the others in that it is a residential program. It is for youngsters who presumably must have some change in their present environment if they are to have much of a chance to break out of the cycle of poverty.

Now in actual practice, most of the work program that is identified with the Job Corps is work on the public lands in conservation work or in improving public recreational facilities and national parks and forests.

We have felt that there can be some programs where something a good deal more pointed could be done, to have some effect on urban areas as well. For example, in a number of our job centers around the country we have enrollees taking on the actual improvement of a city park as a project, say in the city adjacent to their camp. We think it will make the people appreciate these youngsters a good deal more if they are, in fact, doing something visible in such a way that every time one goes by this park and realizes it is a lot better looking than it used to be, he can say, "Thank us. We are doing these things for you and you have not asked us to do it."

I think this is a good program aside from what it accomplishes for the community. More and more camps are opening up around the country, and the taking on of such projects as this in the community is very helpful.

Secondly, we call your attention to such a program as the President announced less than two weeks ago involving New Jersey and the Federal Government. In this the State of New Jersey's Department of Interior and the Office of Economic Opportunity are tying together Ellis Island, Liberty Island, and a blighted area on the New Jersey waterfront. This may very well be one of the places in the United States most in need of this kind of thing.

What we propose to do here is create a Job Corps Center and over a period of years have a work program pointed toward making a shrine, in effect an historic shrine, out of Ellis Island. In my

opinion, that should have been done years ago. We would also be continuing the work on Liberty Island and then reclaiming, if that is the proper word, some of the New Jersey waterfront and making it into a beautiful, green park. The three will then form one complex.

It is my conviction that the antipoverty program does have a contribution to make toward our goal of conservation and beautification. Our youth programs are pointed towards this and are equipped for this and ought to do more of it than they are doing. I hope as you participate in these programs locally, if you do so, you will point up the need in your own communities for the Neighborhood Youth Corps and the Job Corps to busy themselves in this kind of thing.

Mr. VOLLMER. When I was studying city planning thirty years ago, cluster planning, as a device to conserve and concentrate open space had been well established and accepted by the profession. Examples like Welwyn Garden City and Hampstead Garden Suburb in England and Sunnyside, Radburn and Chatham Village in this country could be seen, evaluated and used as precepts.

Yet a year ago, William H. Whyte's greatly needed restatement of and argument for the cluster principle struck many as revelatory, so little had been done in its name.

Again, roughly thirty years ago, I presumptuously called the attention of New York City's Parks Commissioner to numerous small parcels of land owned by other city agencies which were crying for transformation into small sitting or play areas. With unusual patience—and to my infinite embarrassment—he reviewed in detail the efforts that had been and were being made to acquire development rights to these very parcels. Apathy, departmental jealousy and inertia largely blocked the endeavor—and this was in the administration of Fiorello LaGuardia, no mean redtape cutter himself.

With deference to my fellow panelists—and, for that matter to those on the other panels—the planning and conservation principles which we all advocate here are not new. There may be minor disagreement as to where and when they are applicable but essentially we are together on broad objectives and we are carrying on in a time honored tradition.

Our deficiencies are in practice rather than in what we preach. And much of our failure results from the all too human tendency to accept the will for the deed, to feel that our wisdom and our statements of noble intent are enough in themselves. We should make

no small plans but the most sweeping plan achieves little while it stays on paper.

First, we must set our sights on objectives which have a reasonable chance of achievement. Excuse my being parochial in the choice of an example but the suggestion is constantly being made in New York that the City should condemn for park purposes small, temporarily unoccupied, parcels in the midtown area. Now the cost of acquisition of these parcels would be likely to run as high as \$400 per square foot—if there were the chance of a snowball in hell that the most enlightened park administrator would propose—and the most sympathetic budget director approve—the expenditure of such sums for purposes which, except during a very few months of the year, would give the greatest benefits to adjacent property owners.

(Incidentally, the best thing that could happen would be the development of a new breed of budget directors who would concentrate on seeing that public funds were spent wisely rather than in trying to block expenditures altogether. But following my own ground rules I won't set my sights on Utopia.)

To achieve this type of open space I believe we will for the most part have to await redevelopment and, depending on the type of sponsorship, rely on zoning restrictions or "bonus" incentives to ensure adequate and appropriate open space. Effective legislation and administrative procedures should prevent the disposition of land now in public ownership until it has been conclusively established that it is not needed for park purposes. Land in public or quasi-public ownership or the air rights above them should be eyed greedily for open space use.

The auto which has done so much to make the hearts of our cities hideous should be made to repay some of its debt to us. Rather than being permitted to preempt park space for parking, even though it may be only for the period of garage construction, garages and parking lots should be made not only to stand on their own feet financially but should contribute open space. For example, in the newer housing developments, major parts of the open space around the buildings are used for parking; for as little as \$4–\$5 a square foot, these could be covered with light concrete decks. Not only would needed sitting or play space be achieved but the outlook from the buildings would be immensely improved.

Again, in the planning and construction of our urban expressway systems, land taking should be adequate to ensure not only land-

scraped buffer areas between the expressway and the neighborhood but to yield developed park and play areas as well. The Cross-Bronx Expressway in New York in its 5.6-miles length yielded no less than 22 playgrounds or sitting areas—and this without excess land taking.

Strong leadership, simple legislation and zoning, good public relations and, hopefully, an enlightened public are what is needed to do the trick. There are, unfortunately, no miraculous nostrums or universal panaceas and those who promise them delude us, willfully or otherwise.

Mr. WASHINGTON. A preacher was called to a church. His first sermon was, "Repent." For the next three Sundays he preached the same sermon. Finally a good deacon asked him, "Reverend, aren't you going to change your sermon?" He said, "No, I do not think so, until somebody repents."

I am particularly impressed with Mr. Vollmer's statement that planning principles are not new. It brings me to the one charge that this conference would have for planners and developers today. We have to repent if our cities are going to look any better.

Mrs. Johnson accepted the challenge of urban beautification and formed the "First Lady's Committee for Beautification of the Nation's Capital." This committee's structure and performance may well form the model for similar beautification committees in every city of our Nation.

On the occasion of the initial meeting of the committee, I observed that we are all pleased with the beautification of the Mall and the beauty of the Arboretum and other plantings, but that a really significant dimension would be achieved in the Washington urban complex when a youngster had an opportunity to plant a tulip or an azalea in his own yard. He can then understand the care, the labor, the discipline involved in the development of this flower or plant. This process will permit him to understand and appreciate the beauty of the Mall and the Arboretum.

Parenthetically, I have been very busy planting azaleas around the city since that time. We must expose all of our citizens, young and old, to area environments which have beauty, joyfulness, interest, as well as character and dignity. In too many instances, our urban and open spaces are characterized by what I call the four D's. They are dull, dreary, dirty, and depressing.

We can only free our urban citizens from this drab and dreary condition by applying new concepts of physical design and social use

of open spaces. Architect Albert Mayer has called this process "juvenation." Others state that it is the simple process of bringing leisure time opportunities to the people in their neighborhoods for maximum use.

In Washington, our Beautification Committee has developed plans to beautify some playground and recreational areas. We have also looked at our schools in two dimensions. The physical aspect of the school, we feel, should be commensurate with the needs of youth. Its environment should be pleasant and accepting. A dark and dismal school and bare grounds are hardly desirable for bright and joyous intellects. While it is true that darkness is conducive to the birth of a seedling, only in sunlight and air can it flourish. When the minds of young are exposed to pleasant, festive and interesting work and play areas and parks, we see the intellect come through. We are happy to note, for instance, that two businessmen active in our committee saw this challenge and recently spent some \$7,000 in beautifying two schools.

To deal with the objective of maximum beauty in our cities is to deal with maximum complexity. The urban area produces multiple pressures for available land. This fact is particularly aggravating in Washington. Confined to a specific land area, Washington has no opportunity for expansion by annexation. Nevertheless, we must carefully plan for our city parks and open spaces in the areas where most of our people are living. Competition in Washington for available land involves land for homes and living space, highways, office buildings, industry, commercial activities, schools, libraries, and other uses—all within a limited area. In the District of Columbia we have not looked upon our urban condition with discouragement. We have considered it a great challenge to make our Nation's Capital truly a showcase for all American cities.

From recent experience in Washington and several other cities I submit a few practical suggestions relating to the application of new concepts of physical design and social use of open spaces in urban areas.

First, we know that parks and open spaces should be located and designed so that they are fully accessible and attractive to the interests and needs of all age groups.

Greater emphasis should be placed on the design of small, crowded spaces in urban areas. We know there is great opportunity here.

These spaces should afford opportunities for programing a variety of leisure time activities, of interest not only to the individual but also to the family unit in the immediate vicinity of the area.

We should extend our planning of parks and open spaces to accommodate daytime and nighttime opportunities and activities in urban centers, throughout the entire year.

In the planning of open spaces we significantly correlate many factors of physical and social significance such as building types, roadways, trees, relationship to neighboring communities, play, school, and work areas.

We should make our open spaces and recreation facilities part of the daily environment of our people. We should remove the barriers to participation and provide opportunities for all citizens to use open spaces and recreational areas. We provide contact with beauty for all, in the words of President Johnson, "not just easy physical access, but equal access for rich and poor, Negro and white, city dweller and farmer."

Beyond this, I believe that we would all agree that the job ahead cannot simply be left to government or to the architect or to the planner or to the sociologist. We know the job is a job for all of us. As citizens concerned about our cities and the future of our Nation, we must all work together.

Statement of Senator WILLIAMS.* The President's Conference on Natural Beauty represents a significant step forward in the search for ways to preserve and improve the appearance of our country.

Planning for the future means planning to make the best possible use of all the resources available in our society. With over 70 percent of the Nation's population now living in urban areas, the open spaces in and around our metropolitan complexes are among the most precious of all our resources. Yet in city after city, we find examples of weed-grown vacant lots, neglected parks, overcrowded play areas, and neighborhoods deteriorated to the point where they are islands of ugliness.

We have sacrificed beauty for the sake of jamming together as many buildings as possible into the smallest amount of space, often with little or no regard for the architectural pattern of existing facilities. The arteries leading into many of our major cities are bounded by clusters of unsightly billboards, or junkyards

*Senator Williams was unable to be with the panel at the time of its public meeting. His statement was read by the chairman.

piled high with the remnants of discarded automobiles. Suburban housing projects have risen with little attention being given to see that they fit in with over-all plans of development for the community. Similarly, little attention is paid to the aesthetics of setting or design.

Suburban growth, which increased by a staggering 50 percent between 1950 and 1960, is beginning to show the same signs of haphazard construction that characterizes our large cities. In the rush to accommodate the large exodus of people from the cities, we are re-creating the same unhealthy and unhappy environments which they are seeking to escape. This urban spillover is becoming an increasingly urgent matter that is going to demand more and more of our time and energies.

What are some of the guidelines we already have to meet these growing problems, and where can we go from here?

With the Housing Act of 1961, we launched our first frontal assault on the open space problem. Under title VII of that legislation I was successful in having \$75 million authorized for open space use. As of April 30, 1965, this program had made 360 grants to communities in the acquisition of more than 136,000 acres of land to be devoted to permanent open space. The continuing vitality of this program is demonstrated by the fact that 141 of those projects were approved during the current fiscal year.

But like any program which is new, there were defects, and we now must begin doing something about them. Localities wishing to make use of Federal assistance have run into a number of obstacles because of inability to meet matching fund requirements and because of the restrictive criteria governing the use of funds upon which the initial program was based.

The bill which I have just introduced would provide for increasing the Federal contribution toward acquisition of this land by State and local agencies from the present maximum of 30 percent to 50 percent. In addition it would make money available for developing the land as well as purchasing it. I am hopeful that this will take some of the pressures off city governments which are squeezed the hardest between costs of providing more and more local services and the need to purchase rapidly disappearing open space.

Under the 1965 housing bill, many new programs are foreseen which will encourage local experimentation and innovation, that should dress up and expand our parks and open space facilities.

Tree planting and a more tasteful use of shrubbery and flowers would be possible to enhance the landscape.

Outdoor facilities for art exhibits and other such special purposes could be improved and expanded, with care being taken to provide adequate lighting.

Playgrounds and other recreational areas could be beautified and broadened in scope so as to benefit all age groups.

Restoration of our waterfront areas should also be high on our agenda, and more attention could be given to utilizing our city lake and river systems for boating, fishing, and other leisurely pastimes.

Furthermore, we must begin exercising more imagination and foresight in developing long-range plans for the shape of our future cities. Each year one million acres of land are lost to urbanization. Much of it is wasted when it might have been effectively utilized if the communities had a better set of blueprints. The failure to plan well now will only spell additional complications and expenditures in the future.

But perhaps most important of all, we must now launch a massive national effort aimed at establishing beauty in design as a major element in all Federally assisted urban construction programs. I have proposed that we begin by amending the Housing Act of 1949 to add language to the declaration of national housing policy that will make explicit the government's objective to provide leadership in the achievement of beauty in all communities.

Along with this, I am going to ask that a National Council on Urban Design be established for the purpose of reviewing Federal aid projects to secure quality design.

We will thus be able to put new emphasis on the aesthetics of construction that has been so far lacking.

These are just a few of the initiatives which are going to be needed if the concept of a more beautiful society is to be realized. The President addressed himself forcefully and eloquently to these problems in his recent landmark message.

The time is now past when we could defer these goals. Our country is a gift that has been put temporarily into our safekeeping. We do not have the right to spoil that which future generations must one day inherit.

Questions and Discussion

JOSEPH A. DIETRICH. I notice, as is usual, that in most of these discussions the emphasis has been placed on the words "city parks." Many of us are also deeply concerned with the problem

that exists in many of our rural areas and in the villages and towns that exist throughout the Nation.

Cities are equipped with engineers, planners, architects, landscape architects, and people in other professions to guide and direct their activities. What are we planning and what are we doing about the small communities that do not have these services, yet need them more than anyone else?

Many of these little towns and cities are experiencing the push of the city population out into their areas. They certainly are faced with the problem of land use. Because of their small budgets, they must use open space land for other town facilities. Many of these towns and cities, however, are not directly looking for Federal aid. In fact, they resent in many instances accepting Federal aid because of the encroachment that will result from the use of Federal funds.

Is there some approach being made by this panel? Have you discussed it?

Mr. DAVIS. The point is well taken that the need for parks and open space in our major cities is most dramatic. But this does not take away for a minute the fact that there is every bit as much need to make the smaller towns comfortable and liveable and pleasant. It is even more important in some instances, to make sure the people do not leave these smaller cities because of their drabness and look of uninterest.

The President's program for open space acquisition and pending proposals are equally available to any local agency that can qualify, that is, who can contract with the Federal Government. Under the present program we have made a grant of \$1,000 to one township in Pennsylvania. There are only a few thousand souls in this township, but I am sure they have a conservation approach to their land use problem. In your own State and the neighboring State of Massachusetts you are far ahead of most of the country in the establishment of conservation groups and conservation commissions authorized under State laws to take a good hard look at the physical environment of your smaller towns and cities.

Mr. DIETRICH. I want to commend Mrs. Jacobs' statement about the budget. She points out a very definite deficiency. We are all in support of what she has said.

CALVIN S. HAMILTON. It seems to me we need legislation which allows park subdistricts in cities. This can help implement

open space and planned unit residential development and help support more than normal level of park development where local communities want to help pay for it. At present, because of limitations in legislation, it is impossible to do this.

It also seems possible to implement some of the things Mrs. Jacobs has suggested in the past. This might include the ability for communities to be able to develop an open mall.

Second, I think we need under Urban Renewal Administration authority the ability to collect rooftops together.

Now this may sound silly in some small towns, but in the big town where you do not have groundage you have a tremendous amount of roof area. There are unique opportunities to develop these for recreational purposes.

Third, we need State legislation which would reduce taxes on private country clubs, as a public purpose. It would also apply to private plazas, the sort of thing where you have private, open space. The legislation would also allow the city to have first option in acquiring that land if they ever should plan to sell it, and it would allow the city to buy it at an open space value rather than at an increased value based on the value of whatever happens to be around it.

Fourth, it seems to me that the suggestion this morning of an urban design center could be used to enforce or achieve the rudiments of good design in public parks.

My last point is that I think the Federal Government should somehow or other insist that agencies like the Army Corps of Engineers have somebody with design orientation assist them when they develop flood control facilities. These now look like the devil and have no relationship to public open space.

DANA L. ABELL. I have one suggestion and one question. The suggestion is directed to Mr. Simonds.

I would like to suggest that he take charge of a project of preparing two primers on landscape appreciation, one for urban landscape appreciation and one for rural landscape appreciation. His ability to express these things is unmatched in this country. Such a primer could be sent into the schools and start the children off with the kind of appreciation that Mr. Simonds has.

The question is directed to Mr. Eliot.

As a recent refugee from suburbia—and it does not matter what suburbia it is, as it is the same everywhere—I could not protest more

vigorously about your emphasis on order. Order is the curse of suburbia, specifically, the uniform setback.

I wonder if you have any suggestions as to what can be done about breaking the stranglehold of the uniform setback in suburban areas?

Mr. ELIOT. Certainly I do not advocate order in the sense of uniform setbacks.

What I am trying to say is that we want to know where we are and who we are in our great cities. The continuation of Los Angeles, mile after mile out into Orange County or San Bernardino County, gives us no indication of where we are or who we are in the Los Angeles area.

It would be all to the good to have a great variety of setbacks, to have places like Reston, Va., to have all kinds of designs for compact clustered or other kinds of developments. I am not in favor of standardization.

PAUL N. CARLIN. My question is directed to Mr. Singletary. Many of us are interested in both city and county parks and recreation programs. The primary problem which faces us is the provision of a hand labor force for many of the jobs that have to be done on these types of facilities.

I wanted a clarification. Did we understand you correctly that where Job Corps facilities are located near a city or county park or recreation program, that contractual arrangements can be entered into between the local governments and the Job Corps?

Mr. SINGLETARY. This is not the point I was making about the Job Corps at all. Job Corps is essentially a training institution where a boy decides what he wants to do, divides his time between a basic educational program and, in the case of a conservation center, a work program.

In no case do we have in the Job Corps program a contractual arrangement. The only arrangement we have at this moment is where an activity is taken on as a specific voluntary project.

The Neighborhood Youth Corps is not a program operated at the Federal level. In a city, the Neighborhood Youth Corps might be specifically detailed for this kind of work. So there is a difference in the two programs and the two objectives.

As far as the work the boys do, we are primarily concerned in the conservation of kids and not of parks and open spaces. There is a different emphasis here, but we think that whatever the work pro-

gram is, conservation of recreational facilities or whatever is in addition to any good that might redound to the community. We are interested in the good that redounds to the particular youngster in the creation of work habits. Many of these boys do not know how to work. We see the work program as a kind of therapy and kind of discipline as well as something that might produce a particular result.

LAWRENCE C. ELLERY. I believe that most of us attending this wonderful conference, the first of its kind ever held in the United States, have a tremendous obligation to take back with us this information as missionaries. We have a hard job to sell. Those of us who are here are interested and dedicated to this purpose.

Our biggest selling problem is going back home and selling our regional, local, county, and State governments who are already harassed with their multitudinous problems of meeting budgets, increased taxes, and wiser spending. With a little wiser spending we would have ample money to handle the program projected here now.

We are losing ground every day. We are losing hundreds of thousands of acres that are being needlessly destroyed for the lack of intelligent planning. One point is to encourage our developers who are only interested in dollars and cents to use the services of trained people in our profession who have an appreciation of nature and how long it takes—sometimes 100 years—to grow a tree that can be destroyed in a few minutes by a bulldozer.

We cannot rely on the Federal Government for all of this. It has to be done through a local citizenry in the towns, States, and cities. Through no other effort can this be achieved.

A DELEGATE. This isn't meeting the issue. The truth of the matter is that almost everybody in this room and in the other sessions has been doing this kind of selling job. I think we must continue our effort at the local scene, but the impact on the cities and urban regions of this country comes even now through Federal action. Let us face up to this as a reality.

I would like to suggest that I think there has been something of an undertone that everything that exists today is bad.

I am grateful to Mr. Ellery who suggests that there are things which are good and which must be saved.

The great issue before us is not so much where to build, but where

not to build. It is in this direction that I think we have to direct a great deal of our effort.

I am thinking particularly of a situation, a current battle, that will go on for another four years or longer, whatever is necessary, to save a very magnificent, not a good park, but a magnificent park, the Brackenridge Park in San Antonio which is threatened by an expressway. This is a classic case because most controversies with regard to the route of an expressway involve a parkway, a playground, a college campus, a zoo, or some special kind of garden.

It so happens in this case that the proposed expressway invades all of these things in one wholesale swoop, not only crosses over recreational area, destroys a Girl Scout camp and nature trail, cuts across a flood basin where water went up to a very high height with recent floods, crosses over a roller coaster, over a huge dam, cuts through a college campus, blocks off the extension of the municipal school gymnasium, blocks off the entrance for the east side of the school stadium, practically destroys the sunken gardens, and on and on and on.

If we are to be concerned with the kind of problem facing us, and I would like to balance or redress a little of this in balance in tone, there are many important things in this country we must save, but it is no good trying to save with one hand what we are losing with the other. I fear that this is not understood and is retained in all of our thinking. I think this is terribly important to keep in mind. Where the fight is being carried on, we have to get a little bit more direct action. Beauty is now politically sacrosanct. The President of the United States has made it so.

I remember a meeting in Reno, Nev., just a few weeks ago, a meeting of the county officials of the Midwest and Western States. The county officials in the western areas understand what is being talked about. The problem is what kind of programs can be developed at the Federal level and through the Federal impact and I think we ought to face up to this as a reality. My specific suggestion would be that the rest of this session be combined with other sessions on the design of highways and that we try to get the President's message to all of the agencies.

A DELEGATE. We are using the regional planning vehicle. If you are not using it in your part of the country, let me recommend it to you. It has been demonstrated that if districts are organized and coordinated with the State and Federal governments,

a group of counties within a natural watershed area can do a job very effectively in the area of beautification, water conservation, wildlife habitat preservation, and so on.

We are at the apex of three counties. Can you imagine trying to save an open space area under that situation? We tried and lost. Now we have a State law going through which is called a local cooperation statute so a number of the municipalities in that area can join together and bond themselves, and condemn open space land in order to save it for our future generations.

This area is the Wolf River Basin. If you talked about zoning to the townships a few years ago, they would run you out of town. Today the problems are so serious they can't wait until regional planning comes in with a program of land use, planning, and zoning.

If you want to strengthen the whole effort and want to unify the Federal effort, regional planning is going to do this. I just attended a national watershed conference. One of the Western State representatives said three Federal agencies and his State had separate programs. The Bureau of the Budget said, "Look, if you fellows don't get together you won't get a dime."

I think the Bureau had the whip hand there; it used it, and should have used it. Regional effort strengthens the local effort and helps to unify its purposes.

Statements Submitted for the Record

BYRON R. HANKE. The carpeting of more millions of acres for new homes need not thwart our efforts to provide open areas for an urban society.

Adequate land planning for future development could be rewarded by a dividend of half-million acres of new urban parks in the next 35 years. The vehicle through which this acreage could be provided, improved and maintained is known as the planned-unit development with a homes association. It can be done without extra initial costs to developers, homebuyers or government, and without an increase in the general tax burden.

In the planned-unit development or cluster technique for developing new residential areas, the large open spaces and recreational areas are obtained by intensive use of land for housing in some sectors while preserving other sectors as open space for the benefit of the residents.

This does not necessarily alter over-all residential density patterns.

It does permit pooling of land for the greater benefit of all concerned.

The cluster technique actually reduces housing construction costs by shortening the network of streets and utilities. If over-all density is increased, it also reduces the raw land cost per dwelling unit. Exemplified by Fremont, Calif., local governments are having success with a small percentage increase in over-all density as a bonus in local planning regulations. This encourages land developers to use the cluster technique as a rule instead of an exception. By such rewards the current development practice of homes without open space could be replaced by a general practice of homes plus parks at the same or a lower price.

President Johnson in his message to Congress earlier this year said, "in the remainder of this century . . . urban population will double, city land will double . . ."

At the present rate of use this means that 10 million additional acres of land will be urbanized by the year 2000. Thus, if planned-unit development resulted in the dedication of open space equivalent to only 5 percent of the total new residential areas, a half million acres of recreational open space would be added to our Nation's inventory.

The maintenance of the open space in a planned-unit development is assumed by a homes association in which membership of all lot owners is automatic. The association finances its care, determines its use, and undertakes the responsibility for its maintenance. Private maintenance of the common open space with private funds assumes significance in the light of Mrs. Jacobs' reminder in the panel discussion that maintenance of many existing public parks is poor because insufficient money is available to maintain the parks we now have.

We need to have our parks and places of recreation where the people are so they can be used as part of day-to-day living. A park in a remote location which is relatively inaccessible has little meaning in the day-to-day life of the urban dweller. Convenient access is inherent in the planned-unit development in that the open spaces are interrelated with the homes and intimately associated with the daily life of the neighborhood. These association-owned parks are intended to supplement the major parks, playfields and open space reservations needed by the larger community and supported by public funds.

The long and remarkably successful experience of automatic-

membership homes associations is revealed in a recent study by the Urban Land Institute of Washington, D.C. Comprehensive guidelines for creating successful PUDs and homes associations are available in ULI's *Homes Association Handbook*, in FHA's Bulletin 6 on *Planned-Unit Development*, in the American Conservation Association's publication on *Cluster Development* by William H. Whyte, and in ULI's new bulletin on *Legal Aspects of Planned-Unit Residential Development With Suggested Legislation*. Related information on land-use intensity and varied building types in planned-unit development are in the statement by Richard J. Canavan, FHA Assistant Commissioner for Technical Standards contained in the proceedings of the panel on the New Suburbia.

In view of the opportunities in the planned unit development with maintenance by a homes association, it is desirable that those entrusted with the responsibility for planning land development, developing local regulations for land subdivision, and the development of park land take an active lead in pursuing this course of action.

BARRY F. MOUNTAIN. Suburbs sprawl, cities decay; automobiles, filled with anxious Americans seeking a measure of serenity in their lives, stream outward from city centers; and the cities gorge themselves on the ever-receding countryside. Now, while there is still time, we must provide space in which to live and grow. We owe it to ourselves and to generations of unborn Americans.

It is not enough to simply preserve our existing park space, or to create open spaces in revitalized urban areas. These are solutions for the present—but, what will happen in 20 years?

We feel, based upon our own experience in urban renewal and master planning, that it is time to take stock of all that has been accomplished heretofore and of the challenge we face in years to come. Are we proceeding in the right direction? Do we ourselves have a master plan?

What we propose is the creation of a total but individual master plan for the development of each of the 50 States. A total, comprehensive effort based upon principles outlined by the Federal Government, to be implemented through local and State initiative; one which will compliment and reinforce the President's program to beautify America. An effort that utilizes all of the sociological, geographical, and anthropological research available; and which provides for research into new methods and materials for recreational use.

We know that the mind is generally little influenced by temporary exposure to beauty. Rather, sensibilities are molded by frequent contacts which form a meaningful, if subconscious, part of our existence. How can we expect our people to seek out beauty and improve their condition if we provide no daily stimulus to their lives?

Therefore, we suggest a plan which provides for the creation of a series of parks and playgrounds beginning in urban areas and progressing into and through the suburbs. A series of islands where one may go to sit or walk or just be alone; places close to the city center as well as beyond, where it is possible to walk within a grove of trees, however small; where flowers can grow; and where grass can reach its natural growth.

No home should be more than a few blocks walk in any direction from an open public space (be it a city block square or 10 square miles). We must not try to compress all types of facilities within the same areas; rather let some islands be green with only trees, flowers, benches and walks; let some be playgrounds with swings and slides; and let others be athletic islands with courts and ball fields. These islands will open the cityscape and provide a variety of stimuli for a variety of activities; and they will add immeasurably to the beauty in our everyday lives.

The White House Conference on Natural Beauty should be but a prologue to the great things that lie ahead. Even with the energy and direction available in this country today, there is much to be done—but, if we start now, there will still be time.

Dr. J. HAROLD SEVERAID. Sacramento County, Calif., in part more urban than rural, has developed an ideal plan for developing county parks and open spaces. It has already met most of the criteria called for by Mr. Belser. Their 58-page published plan, entitled: "A Report on the Park and Recreation Space Needs of the Sacramento Metropolitan Area," by Pacific Planning and Research, Sacramento, might well be investigated as a possible model. (Address: County Planning Department, 827 Seventh Street, Sacramento).

Let's start tax-exempting open space back into existence instead of taxing it out of existence. Open space has as great a value to man's well being as does revenue space. Take the exorbitant profit out of land speculation and open space will be less prone to be forced into the asphalt jungle.

BEVERLY S. SHEFFIELD. My suggestion and recommendation is that we search out a way to eliminate throwaway beer cans and bottles. These throwaway containers depreciate and mar the beauty of our parks and road rights-of-way. In many instances they are thrown on private property. They not only create a litter problem, but the broken glass bottles forever present a hazard. Often these bottles are broken at swimming pools, picnic areas, and along streams.

I suggest that the beer distributors be approached on putting their merchandise in containers that require a deposit such as the old glass beer bottle. I also suggest that the manufacturers be asked to come up with a product that would soon disintegrate when left in the elements.

WATER AND WATERFRONTS

3:30 p.m., Monday, May 24

The Chairman, Mr. CLAY. Water is the great giver of life. Close to its banks and shores men have raised their greatest cities. Without water, civilizations wither and men perish. It is the flyway for ducks, the great distributor of raw materials, and also common carrier of contamination, of the wastes of bodies human, governmental, and corporate.

Concerned as we are with water, concerned we must therefore be with the total environment and not merely with its bits and pieces. More than any other at this White House conference, I think, this panel must be especially concerned with relationships between men, and between all the elements of their environment and the goals we believe this environment should attain.

In an earlier America, poets have measured their waters and found in them, not contamination, but inspiration. High in the north Georgia hills, Sidney Lanier lived and wrote his incomparable "Song of the Chattahoochee." The years have dealt gently with that lovely poem, but not with the waters of that urbanizing river. I hope Mr. Lanier's memory will not be offended if I offer a contemporary version:

Out of the gullies of Habersham
Out of the gutters of Hall,
I try in vain to reach the plain,
Before the bulldozers get at it again,
Silted, polluted, deprived of the rain,

Members of the Panel on Water and Waterfronts were Representative Frances P. Bolton, Henry P. Caulfield, Jr., Grady Clay (Chairman), Representative John Dingell, Leonard Dworsky, Carl Feiss, Senator Philip A. Hart, Christopher Tunnard, and Conrad L. Wirth. Staff Associate was Allan Hirsch.

My bed is too narrow, the dumps are too wide,
I flee man's folly on every side,
He's damming and sluicing me down through the plain
Far from the gullies of Habersham,
Far from the gutters of Hall.

On today's waterfront, we deal with two parts hydrogen, one part oxygen, three parts unregulated self-interest. Strip off all natural protection, add an uncontrolled population, and you get the explosive mixture which confronts this conference today.

Our purpose is to get nature back into the equation; to control man's reckless exploitation of waters and the lands to them contributory; and to recommend to the President of the United States specific ways and means.

My task is to look first far upstream at the sources of waters; and then to introduce our panelists who will carry us rapidly downstream from one recommendation to the next, pausing to look scathingly perhaps, constructively, and not too long, at the waters, banks, adjacent lands, views and prospects and to recommend precise measures to improve the quality of that environment.

We begin, as do the waters, deep in some wooded glen or in the hollow of a hillside where water pure and undefiled gushes from the ground. We are here at the incomparable spring, God-given source of a mighty river. Such sources of all significant rivers should be identified, mapped, and then protected—as unique and often historic elements of the landscape. They should not be drowned, destroyed, or sequestered for private purpose. Protect them we must—by easements, purchase, leasehold, or other methods. If the city of Paris can protect the source of the Seine high in the mountains north of Dijon, cannot we do the same with sources of our great rivers? I recommend that such a national policy should begin at once with the source of the Potomac River, that the District of Columbia enter upon a joint venture with the appropriate Federal and State agencies to do this.

Next, in all that we do, we should encourage waters to walk, not run to the nearest gravitational exits; to percolate, insoak, infiltrate. Water has much more to do where it falls.

In this respect I hope we can devise techniques for urbanizing the lessons and methods of the Soil Conservation Service. This will require us to expand the provisions of the Watershed Protection and Flood Prevention Act (Public Law 566); to set up regional versions

of TVA, systems of small upland reservoirs tied together in remote-controlled, automatically regulated systems to retain more waters where they fall, to improve the quality of upstream life and the amount and purity of downstream waters.

We should also, in the same vein, promote municipal watersheds, holding rainwaters close to where they fall, such as in the watershed protection plans of Newport News, Va., and Atchison, Kans., meanwhile providing the kind of recreation places which the Newport News plan indicates.

And, while we are at it, let us stop the senseless pollution of streams and erosion of the soils that come from unregulated earth excavations, by requiring silt-holding basins or ponds as a part of all major construction work. We might well follow the example first set here in the Washington Metropolitan area, at Dulles Airport. Our urban areas are fast becoming the major source of silt that clogs our streams, and ought to be better regulated.

Mr. DWORSKY. The task of achieving the President's goal of a beautiful America is not, admittedly, an easy one. One of the most difficult parts will be to renew the Nation's waters and waterfronts so that they can contribute to his goal. This discussion contains four ideas, in furtherance of the President's goal.

1. The effective management of the Nation's waters and waterfronts is a prerequisite if we are to gain the new conservation, the objective of which, the President has said, "is not just man's welfare but the dignity of man's spirit."

A major part of this prerequisite action is the control of water pollution. But even with pollution controlled—partly today or ultimately tomorrow—water and waterfront beauty will demand more than just clean water.

The past third of a century has seen increasing efforts to stop water pollution. Comparably, the Nation's major effort to turn the tide on city slums also began in the early 1930's.

The original slum clearance and low cost public housing programs of the 1930's have been supplemented today by new and important goals. Some of these include the opportunity to remake our cities into clean, well-planned, and aesthetically appealing places to work, live, and play. Creating beautiful cities has become for many an important objective of urban renewal.

Does "the River Beautiful" with its attendant meaning give us a new set of goals for which to strive? If "the City Beautiful" is a

national goal—and it clearly is—can our goal for the Nation's waters be less?

I suggest to the conference that the concept of stream renewal, used in the same sense as urban renewal, should constitute a major goal for the Nation.

Stream renewal should be a challenging concept to our water and land managers—both public and private—and to those responsible for programs involving open space, recreation, industrial parks, solid waste disposal, and flood plain and other land zoning programs. Stream renewal can provide the central strategic view sought this morning by Luther Gulick around which the agencies and the public can develop and coordinate many separate programs. It could form a major guideline for any new council that might be established.

2. The concept of stream renewal, however, centers on the control of pollution to insure that water is usable and reusable and to support the highest development of lands adjoining waterfronts.

Today we can clean up only part of the pollution of our rivers, lakes, and bays at costs presently accepted and using technology presently available. I suggest the early use of known and accepted waste treatment technology, normally at secondary levels of treatment. I further suggest that the use of this norm of treatment no longer be debated but rather that such treatment be an accepted axiom—everywhere—under conditions which I will describe, if we are to have any hope at all of modestly controlling pollution during the coming decade.

The significant advances that have been made in the past decade under the Federal Water Pollution Control Act of 1956 lie in two areas; municipal sewage treatment plant construction and the enforcement of pollution abatement on interstate waters. The first was due in large measure to a major policy shift which provided for the Federal Government to share in the cost of financing sewage treatment works. The second was due to the strengthening of the Federal role in enforcement without diminishing the possible role of the States or interstate agencies.

For ten years the trend has continued in this direction, with a doubling and a proposed tripling and quadrupling of the original \$50 million participation by the Federal Government in construction aid. Concurrently, amendments in 1961 and in current legislation affirm the continuous desire of the Congress to strengthen the Federal enforcement role.

The obvious meaning of this trend is that the Congress, and the people, are not yet satisfied with the attack that has been mounted so far against water pollution. Every sign points to greater Federal participation.

I believe that the single most important fact before us is that our present technology-cost posture leaves us incapable of coping adequately with the total pollution problem as it is now developing and as it seems likely to develop in the future decade.

The alternatives before us, then, are first to place into effect, as rapidly as we can, our known technology of sewage and industrial waste treatment; and second to establish immediately a new and vigorous research and development program to seek a new waste treatment technology or significantly improve our existing technology.

I believe that our immediate task during the next five to ten years, must be to adopt a simple and uncomplicated process for upgrading our treatment capability to the level of secondary waste treatment—the removal of nearly all settleable solids, oils and grease, and a major fraction (85–90 percent) of oxygen-consuming organic materials.

Secondary waste treatment is commonplace today in municipal waste treatment systems. Today, more than 70 percent of treatment works are of the secondary treatment type, involving 60 percent of the urban population provided with treatment works.

The Federal Government, too, is moving rapidly in some areas to bring about the construction of secondary waste treatment works. The 1961 amendments to the Federal Water Pollution Control Act, for example, provide that water can be stored in Federal reservoirs and used to dilute sewage and wastes, but only after “adequate treatment” has been provided at the source of pollution. Public Health Service policy is to define “adequate treatment” as 85 percent removal of organic material and essentially all settleable solids, or secondary treatment.

In another action the Federal Government is developing instructions for the control of sewage and wastes from 18,000 Federal installations. The general rule will require that secondary treatment be provided unless it can be demonstrated that less treatment will suffice.

It is my suggestion, therefore, that the Congress consider the establishment of a positive national policy, either in a resolution or as an amendment to the Federal Water Pollution Control Act, which

would set a basic level of secondary treatment as a national floor for sewage and industrial waste treatment subject to the following important provisions:

(a) Effective State and interstate agency enforcement of the national basic requirement;

(b) States or interstate agencies to require more sewage and waste treatment where necessary; and to provide for States to allow a lesser degree of sewage and waste treatment, where it can be demonstrated that a lesser degree of treatment will suffice, for a specified and limited time period subject to periodic review by the State;

(c) State and interstate agencies to submit a new type of State plan, under section 5 of the Federal Water Pollution Control Act which presently requires the submission of a plan, and which should outline a practicable program including a timetable for meeting the basic national sewage and waste treatment requirements;

(d) The agency administering the Federal Water Pollution Control Act to continue the present practice of cooperating with the States and interstate agencies in the development of an effective plan;

(e) Effective backup enforcement by the Federal Government to assist State and interstate enforcement efforts.

It should be clear from the foregoing that the idea of a national policy establishing a minimum floor for sewage and waste treatment, subject to the specified qualifications, is merely the extension of a practice widely used and represents no major innovation. It would, in fact, be closing a gap already initiated by the States for a majority of the Nation's towns and cities.

Finally, when we realize that secondary treatment represents the practical upper limit for most communities and industries during the next decade, the value of the use of a basic treatment requirement—or floor—as a practical and relatively simple administration device becomes increasingly evident.

Questions will arise in connection with the effect of this suggestion upon industry. Industrial wastes are not comparable in all respects to municipal wastes. The variety and number of the components of industrial waste make it impossible to relate secondary treatment to all industrial wastes. This should not deter us from requesting compliance with a minimum treatment floor for settleable solids and organic, oxygen-consuming wastes. Specifications for the balance of industrial waste treatment will need to be worked out with

the appropriate regulatory authority, subject to a timetable and a definite program.

Another question relates to the matter of industry and pollution control enforcement.

The difficulty of achieving enforcement of pollution control by States and the need for more effective controls, including the use of basic Federal requirements, have been outlined in a report by the U.S. Advisory Commission on Intergovernmental Relations.

The Commission states that:

. . . serious economical and political repercussions which can result from the enforcement of stringent (State regulatory) provisions usually means that they are employed relatively rarely.

The Commission also notes that:

Perhaps the most potent constraint on State pollution control is competition for new industry and the fear of driving existing industries from the State. Industry, fearing the loss of competitive positions if required to make up the tremendous backlog of industrial waste treatment, often has threatened to move. Differentials among the States in standards and levels of enforcement make these threats possible.

If we as a Nation are to come anywhere near the goals that we have set for ourselves in achieving clean water, we will need to look equally to major policy adjustments in cost sharing, for industries as well as municipalities, to the use of common facilities, and to new technological advances both in industrial processes as well as in waste treatment technology. This will be necessary if we are to be realistic in the demands that may be placed upon the industrial segment of our society. The revised cost-sharing formulas proposed by Governor Rockefeller and endorsed unanimously by the New York State Legislature can be a guide to new State-Federal views on this matter.

The suggestions in this part are concerned with strengthening the roles of both the States and the Federal Government; of providing an effective alternate to the proposals presently before the Congress and offering a means of maintaining a more balanced Federal-State relationship during the next period in this continuous effort against water pollution.

3. For tomorrow and the longer future we will be able to control pollution effectively—to make water a contributor to national beauty, and health and economic welfare—only if we make rapid progress

in developing a new waste treatment technology or increase significantly the effectiveness of present technology. If we do not have this advance in technology, we will not be able to control pollution.

While the Federal water pollution research program has been growing in many respects during the last several years, the amount available for research aimed at new technological developments has been severely limited. In this vital area the annual current budget is probably about \$1½ million.

There is need now for advanced waste treatment technology. My guess is that by 1975 we will be in very great need for a new technology in most parts of the Nation.

The research and development program that is called for will require major participation by American industry and universities. This new type of R. & D. program may require new arrangements for financing industry's participation.

The key issue, however, is to broaden as quickly as possible the base of investigations at a much higher—probably not less than \$10–\$15 million annually—level of expenditure. This aspect of the national program is late now and further delay will require higher annual outlays in the future.

4. The strength of a society such as ours rests on a well-informed people. The public has indicated, in thousands of communities across the land, a strong willingness to do what they have been asked to do by their State and city officials to control pollution. More will be demanded of them in future years.

If we are going to ask much more of them there must be expectation that what we are seeking can be achieved. The people should have some prototypes demonstrating the achievable.

Nowhere, to my knowledge, do we have a satisfactory basinwide cleanup to the extent currently possible for pollution control to which our people can point and say here, in reality, is our objective. The President has pointed the way in his comments concerning the Potomac as a demonstration for the Nation's Capital. We can use an effective demonstration program in every major section of the Nation—perhaps a dozen. This type of demonstration program ought to be pursued vigorously by the States, interstate agencies, Federal agencies, industries, cities, and land managers working in concert.

Mr. WIRTH. Water and valleys have been for years and still are the main routes of travel. They have made great contributions to the development of the Nation. People tend to congregate on the

shores of all types of bodies of water. It is interesting to note that the 24 metropolitan areas with populations of a million or more are located on rivers, lakes, and oceans. Water frontage is by far our most expensive and most sought after real estate— and it is in short supply.

Water is a vital element; not only is it essential to human life, but it provides the aesthetic and recreational needs of our people. It helps create, and is an important part of, our environment.

Yet it has been the most abused of our resources. We dump into it everything we do not want. Cities and towns use it as part of their sewage systems. Industry fills our rivers and lakes with waste materials, chemicals, and refuse. We destroy the natural watersheds with bulldozers. In many cases the Federal Government has created graveyards for ships in some of the most scenic sections of our rivers.

We allow commercial developments and residential communities to be constructed on natural flood plains and then expend untold millions of dollars on flood disaster relief.

We permit private exploitation of coastal barrier sand dunes only to have homes and towns washed away, along with what is left of the coastal barrier sand dunes. Then, following storms, we expend millions trying to reclaim the sand dunes and provide relief for those who were responsible for their destruction.

These are the conditions. While there is an awakening and a growing awareness of the problem, no adequate solution has yet been developed.

I realize research must go on in these things, but there are certain steps we must take right now and I have four suggestions to make.

I propose:

1. That a pollution abatement tax of 1 mill be levied on every gallon of contaminated water that is dumped into our streams, rivers, lakes, bays, and oceans; that 75 percent of the funds that result be set aside for research and the cleaning up of our waters and preventing further pollution. This should produce several billion dollars a year. Matched in part by State and local funds from bond issues, backed perhaps by a similar tax, this measure would go a long way toward pollution abatement over a period of ten years.

2. That 25 percent of the above pollution abatement tax money be used to purchase rights that would prevent undesirable uses of flood plains and barrier dunes and would provide access rights to 10 percent of our shores. This would include streams, rivers, lakes, bays, and

ocean fronts. This action would not be in conflict with the objectives of the Land and Water Act, as this is an access and protection right and would not prevent other uses compatible with these rights; the Land and Water Act provides for the purchase and development of park and recreation areas.

3. That a plan be worked out with the States to set up watershed protection areas; and that over-all valley zoning regulations be established which will provide land use controls whether Federal, State, or private land to insure protection against pollution of streams, rivers, and lakes through land erosion and other land misuses.

4. That there be established a Federal Water Control Commission that would pass on all manmade devices associated with water impoundments, diversions, and other unnatural uses of our rivers and streams to insure that all economic and human needs and uses are fully considered and protected before any such project is undertaken. This Commission would be made up of officials and citizen members and their decision would be final and they could only be vetoed by an act of Congress.

These suggestions are based on the principle that all navigable waters are a natural resource under Federal control. It is a responsibility of the Federal Government to show leadership and to take the necessary steps to protect this essential natural resource. Surely we cannot achieve the greatest natural beauty potential when our streams, rivers, lakes, bays, and ocean shores are being used as sewage disposal facilities and their inherent scenic grandeur ravaged by man. The suggestions are also based on the principle that the user pays the bill which is now a well established principle, such as our highway funds, and Land and Water Act, just to name a few.

Representative DINGELL. My friend, Senator Hart, expresses his regrets but the voting rights bill precludes his presence here today. I am reading the paper prepared by Senator Hart. The subject assigned the Senator today was the question of acquisition of needed waterfront areas for recreation purposes. Throughout the comments you heard by the other panelists today, you note there is a need for haste. In this area there is also a need for haste.

In introducing one of the shorelines preservation bills eight or ten years ago, I found there was a third of an inch of shoreline space per person across the country. With the land use and erosion and the American bulldozer, the figure has declined since that time.

Now, let me read the Senator's statement.

Statement of Senator HART. In this setting there is no need to argue the case for the acquisition of needed waterfront areas for recreation purposes. Everyone in this room is well aware of the findings of the Outdoor Recreation Resources Review Commission Report and the many other studies which call attention to our vanishing shoreline.

The point I would hope to make here today is that, although the case for action has been made over and over again, we are not moving fast enough. Every day that passes, additional stretches of shoreline disappear from public view behind the "Private Property—No Trespassing" signs.

It is truly a case, as the Pennsylvania Dutch say, of "The faster I go, the behinder I get."

Or, as one of my constituents wrote me, our Michigan slogan "Water Wonderland" will soon be all too true—the average man will wonder where the water is.

The States are slow in reacting to the need because of lack of financial resources. The Congress, while making some notable progress on acquisition of areas of national significance, has not yet saved some of our last remaining beautiful shorelines. Will we ever be able to save Indiana Dunes, Oregon Dunes, our Sleeping Bear Dunes in Michigan, and Assateague?

In addition to the obvious political problems which are difficult if not impossible to straighten out, there are always powerful voices of one sort or another seeking to bring us to a screeching halt.

No one wants to railroad through the Congress a measure of the dimensions of these shoreline bills. Many people are affected, and we must be responsive to their concern. But while we labor over these proposals ad infinitum, they begin to price themselves out of our reach.

Let me sound a note of warning on the price situation. At home in Michigan the property owners at Sleeping Bear are—even as you and I would be—worried whether they will receive adequate compensation for their property if they decide to sell. Actually, all our experience is that the price of land within these recreation areas rises so substantially that we may—as a nation and as taxpayers—find ourselves barred from Federal acquisition.

To illustrate. My information is that Point Reyes in California, for which we planned to spend \$14 million in acquisition, may cost \$40 million; Padre Island in Texas is likely to go up from \$5 million to \$16 million; Cape Cod from \$16 million to \$35 or \$40 million.

When you consider that the Land and Water Conservation Fund, in which we have taken so much comfort, will make available on an average \$200 million a year, of which \$80 million a year will be available to the Federal Government, we can appreciate the bind we will shortly be in if our shoreline acquisitions are going to run at \$40 to \$50 million each.

Those of us on the panel were asked to avoid a recitation of the problem, and to move to recommendations for action.

1. Clearly my first recommendation—and I hope, as the sponsor of both the Sleeping Bear and Pictured Rocks proposals, I am not being too self-serving—would be that the Congress act as promptly as possible to save as many of the remaining areas as possible.

2. Second, we need to take a very good look at land presently under Federal ownership to be sure we don't turn loose any that might serve for recreation.

3. Third, we will probably have to develop—soon—less expensive means of acquisition. These might include:

- (a) Reviving the good old-fashioned custom of people giving land to the Federal Government, such as was done in the Great Smokies National Park. Here, very real tax incentives might be devised;

- (b) Developing a combination of smaller Federal acreage surrounded by a "buffer zone" where either scenic easements or controlled use, such as we have evolved at Pictured Rocks, could preserve the scenic and recreation values;

- (c) Permitting the National Park Service to acquire option on tracts pending Congressional action on the authorizing legislation;

- (d) Encouraging the private conservation foundations to use their funds to take option on tracts when the first steps are taken toward Federal acquisition, thus holding the cost within bounds;

- (e) And finally, of course, urging the States to move as rapidly as they are able, particularly where this would result in lower cost.

Perhaps one or more of these steps, combined with more vigorous land use planning and zoning, will help us preserve some of the beauty we have inherited.

Particularly will this be necessary, in my opinion, as we move ahead with a national system of scenic roads and parkways. We must not permit ribbons of concrete to be strung along our presently remote shorelines, destroying the very scenery we seek to enjoy. And more

than a "corridor" needs to be preserved; clearly it is going to be necessary to write the authorizing legislation in such a fashion as to require State and local land use planning to protect the natural beauty in some depth.

In all these matters, I trust we will act promptly, with wisdom and courage, that those who inherit this land from us will not judge us harshly.

Representative DINGELL. I would like to conclude with a few remarks of my own. I suspect everyone in this room has reason to judge our forebears very harshly for the mess they left us. The fact we have what we have remaining to us in this country is attributed to the Almighty who bestowed on our forebears not very long past one of the most bounteous lands as has yet been found by mankind. There remains both little time and little in the way of resources to preserve it.

Mr. Dworsky said we should plan for secondary treatment of our pollution. As one from the Congress who has worked on this subject, I would like to comment briefly. There are some specific legislative proposals pending before the Congress which would increase the amount of Federal grants to be supported by State and local matching funds for sewage treatment works from \$100 million to \$150 million; which would provide for the use of subpoena in water pollution abatement; and which would establish either water pollution criteria for the States in the House bill, which is deficient in this particular, or Federal water pollution standards in the Senate bill, which is a superior proposal. Mr. Dworsky seems to have come forward with what may well be a very useful resolution to the problem that exists between the House and Senate with regard to this particular bill.

The issue that I choose to take with Mr. Dworsky is that we are going to find by the year 2000 that secondary treatment is not adequate. We will find in most instances that secondary treatment in the immediate, foreseeable future is going to leave such a bountiful supply of phosphate and nitrates that waters are going to be subject to noxious algal growth. There are right now plants in existence whose effluent can be drunk safely and which contribute a minimum amount of algal growth. Indeed, there is one in the Eastern United States which runs right into a reservoir of one of our major cities with no hazard either to the quality of the reservoir or ultimate purity of the water that comes out of the tap.

In the resolution of the problem of water pollution, or the problem of acquisition of land, or any of the other things we have to face we better think big. What I say is this. Let us not just think in terms of secondary treatment. Let us not just think in terms of research. Let us think about a meaningful program on the Federal and State level. And, I would like to point out, there is not a State water pollution control agency anywhere in the boundaries of the Continental United States which is doing the kind of job it should be doing. Unless they buckle down, the States are going to find that we in Congress who feel the only way that this matter can be handled is by a vigorous Federal program are going to increasingly succeed and are going to find the abatement of water pollution will be conducted, at least on navigable waters, by the Federal Government.

Mr. TUNNARD. The short paper outlined here will stress scenic and cultural possibilities of water and waterfronts, leaving the grave problems of pollution, erosion, and loss of wildlife to more qualified contributors. The paper will stress the importance of the waterfront as part of the national patrimony, in an attempt to correct the current image of it as a refuse dump for objectionable land uses.

Since I am a city planner, the paper will give more attention to urban waterfronts in the built-up and often decayed parts of our cities.

The solutions will stress the use of historic and scenic preservation methods, public and private, coupled with upgraded technology and new governmental strategies.

Think of an urban waterfront—river, lake, or ocean—and be reminded of its blighted condition. It is a refuse dump, perhaps, the garbage filling in the space between rotting piers, where once proud clipper ships or river steamers rode the ways. Or, lately, some huge new installation like a powerplant or a nest of oil storage tanks may have been erected on new fill, blocking off the view of the water. Or, equally bulky and also noisy, a giant freeway may interrupt the prospect, with its thousands of shiny automobiles and trailer trucks. Access will also be blocked; and in many American cities, the residents are scarcely aware that their city is water-based. They are, in 1965, conditioned to travelling many miles for a glimpse of open water. The 2-year battle that was recently fought and won for Breezy Point Park in New York City, the last new beach available to

subway riders, is an example of the energy that must be put into claiming waterfronts for the public.

Paradoxically, the very existence of decay on the waterfront gives Americans a second chance to improve its appearance and amenities. Although there is still competition for land on the water's edge, the existence of decay is evidence that certain older uses are no longer necessary there and that we should be thinking seriously of the kind of uses which should replace them. Some older harbor cities no longer consider the harbor as part of their economy—long-range truck transportation has been a major factor here—and the result is that refuse and objectionable land uses like wrecking yards find their way to the shoreline.

There is already in existence a trend to reclaim those areas for community use. The new Liberty State Park (part of the Statue of Liberty National Monument in New York Harbor) will be designed on the site of old wharves and ancient industries in Jersey City. It will be the only waterfront park on that stretch of upper New York Bay.

Why should not the new land uses at the waterfront provide an amenity rather than a hazard to health or an eyesore? If the economy no longer requires so much industry or commerce on the waterfront, why cannot we consider it for more pleasurable uses? The answer is: we can. Our urban waterfronts can be treated as a new resource for the economy of leisure. But there must be safeguards, or they will be despoiled all over again in the very name of the public. Of this, more anon.

The San Francisco waterfront provides an illustration of the possibilities of reclamation. There are piers all the way around from Fisherman's Wharf to the China Basin. They were built in a generation when visions of expanding world trade coupled with an already obsolete docking technology led shipping and port authorities to "cover the waterfront" with these facilities.

Today, one marginal berthing facility of sufficient width could accommodate all the ocean-going ships ever to be found at one time in San Francisco Bay.

San Francisco's Marine Museum at the Embarcadero, with its six vessels giving a realistic picture of life aboard ship in former times, shows what can be done by private enterprise in an educational way. New York City has as yet nothing like this. The idea of recreational piers put forward by Jane Jacobs for the latter city deserves imple-

mentation. Here recreational programs could join hands with historic preservation, saving for posterity the Chelsea Piers built for Mayor McClellan by the noted architect, Whitney Warren.

A combination of technical know-how and local-to-State government strategy is necessary to renovate our waterfronts. The inertia of years and of obsolete institutions must be overcome. Further, the existence of rotting piers and abandoned ferry slips has encouraged inappropriate commercial enterprise to fill land and even to make new islands in historic harbors. On these reclaimed areas (some of them provided by Federal dredging operations) motel-marina developments are promoted, with free public access banned. Some of them are even braving existing conditions of pollution in order to stake their claim.

Not only new commercial facilities, but new industrial and public utilities projects are underway on waterfront land. Many of these are only there because public regulations have not been devised to keep them away. For example, although oil is still brought in by ship on much of our coastline, the new pipelines have made it unnecessary for oil storage tanks to be located exclusively on the waterfront. Where it must be carried by ship, oil can be pumped inland to more suitable locations in many areas.

Similarly, long-term land contract agreements could insure the removal of scrap metal yards on waterfront land (a common present-day use), with a view to future inland location or to coming advance in technology demanding less space. We should not be thinking of renovating our coasts in short-term measures. They are worth considerable negotiation and trouble.

Meanwhile, new highways are usurping the best waterfront sites, much as the railroads did in the 19th century. A spectacular example is the area of Harlem west of Broadway between 125th and 135th Streets which is losing its view of the river with the addition of three highway viaducts.

Recommendations for various types of action occur below:

1. To insure the urban waterfront becoming a cultural resource, establish urban waterfront districts along the lines of the soil conservation districts, set up by the States and counties. These to be staffed and funded from Washington, and to include in a planning staff an architectural historian, a biologist, city planner, park planner, etc. The districts would not replace port authorities, which are not concerned with scenic character, but supplement their activities. It

is possible that they might have a task force character and turn over their functions to existing county or State planning bodies.

2. The urban waterfront districts should establish scenic zones on the lines of Item 16 in UNESCO'S "Recommendation concerning the Safeguarding of the Beauty and Character of Landscapes and Sites," December 11, 1962. In these zones permission would have to be obtained for new installations, including highways.

3. Historic district legislation should be applied to waterfront land wherever appropriate. For example, when Brooklyn Navy Yard is given over to a new use, the Admiral's house, the Martin Thompson Hospital and a surrounding historic area should be preserved for the public, since for a long time, beginning with the assembling of the Monitor, the history of this area has been the history of the U.S. Navy.

In some waterfront situations, linear historic districts can be established. In all cases the planning district, as my colleague, Harold Wise, has suggested, should be at least six blocks deep, to allow for consolidation of existing railroad uses, etc.

4. County boards of supervisors should refuse permits for shoreline development unless sewerage is taken care of by the developers. Example: The current activities of the gambling and subdivision promotion dynasty on the south shore of Lake Tahoe, which are turning the lake into a sewer.

5. New installations of public utilities and water-needing industries, not to mention the high-rise apartments which threaten historic scenic areas like the Annapolis waterfront, require coordinated planning on the part of regional authorities. In many cases, they do not belong on the urban waterfront at all. Think what this means when it is admitted that the urban shore of Connecticut now extends from the New York State line to New Haven. The historic district, which can save 18th century harbors like Greenwich, and pleasant 19th century fishing villages like Stonington, cannot be expected to do the whole job in these cases.

The real significance of the conflict between scenic preservationists and Consolidated Edison in the New York region is that this public utility serves 10 million now, and that the population of this area will probably increase by 80 percent by the year 2000. Regional planning boards which do not replace but are superimposed upon existing levels of administration are badly needed in these areas. They can be formed of associations of local governments, with demo-

cratic representation. In some matters they should be empowered to deal directly with Washington.

This is not the occasion on which to describe a regional authority. I would merely add that private corporations might assist in the location process by hiring environmental designers and wildlife experts on their own staffs.

To end with a slogan: Access to urban waterfront, both physically and visually, will give our citizens that sense of enlarged freedom, which, exactly 100 years ago, Frederick Law Olmsted claimed for the U.S. public park movement.

Mr. FEISS. Urban water must become an accepted part of our inalienable rights in the pursuit of happiness and life. Our designs must contribute to happiness or they are worthless. Therefore, the urban water part of such designs should take advantage of all urban water opportunities at any scale and of any kind, be they natural or manmade, be they seashore, river or lake, marinas, fountains, ponds or any combination of these.

In all great cities of the world and in many small ones, from Peking or Stockholm to Viterbo, wherever water could be made available it has been used in the city planning process for utility and enjoyment. In the United States only three major cities have made superlative use of their urban water resources for beauty and recreation. They are: Chicago, with its magnificent Lake Michigan waterfront parks; Minneapolis, with its wonderful chain of in-city lakes, and San Antonio, with its delightful downtown river. Curiously, although these examples have existed for years, their influence has been minimal.

The tradition of urban water design over a period of the last 65 or 75 years has been slow in building up, with lack of recognition of the advantages of some of the great work that has been done in the past. There are, however, exciting new urban water programs in a number of our cities, and these are well worth watching. Recent waterfront improvements are noteworthy in Detroit, Cleveland, Boston, Pittsburgh, St. Louis, and others.

Most American cities either are indifferent or apparently powerless to combat ugliness of urban water or the destruction of already created values. I sincerely regret, and this has been mentioned earlier, that the highway designers and the highway planners are elsewhere engaged this afternoon. For instance, Metropolitan Cleveland has been desperately trying to save the lovely chain of

Shaker Lake parks. At any moment a major superhighway may go down the center of these lakes and destroy them. This common danger is found in places too numerous to mention, and highways have irrevocably polluted innumerable urban shorelines.

City after city is losing course to the new autocrats in our democracy. (I somewhat hesitate to contradict our beloved First Lady who said there is no longer autocracy here.) Somehow we must equate human values with natural values, monetary values, and utility.

Is there a computer capable of so doing? I say, no, and I say that we cannot continue to lose ground on open space and urban waters to incompatible and all-devouring use.

I urge the Federal Government to recognize what its various hands are doing. I urge the Bureau of Outdoor Recreation, the Housing and Home Finance Agency, and the various Federal highway, power, conservation, and other interests to get together and present to the general public a unified action program which will state that our all too pitiful open space capital be preserved and helped by them.

The present reign of terror must be stopped forever.

I urge the President to note this serious domestic problem.

In passing, we cannot fail to mention the temptations to the State and the local levels when the goal of Federal aid is temptingly dangled.

Urban based metropolitan park systems with ocean, lake, and stream orientation will be found in Washington, D.C., Boston, New York City, Cleveland, and others, but nowhere enough for present or future populations. Vastly enlarged urban service open space programs using stream systems and water bodies are imperative.

Decorative uses of water in American cities are growing in urban design importance. The older great fountains in Orlando, Chicago, and Philadelphia are having influence but the newer downtown mall fountains and pools included also in central city renewal projects are encouraging.

As recommended in the Community Renewal Plan financed by the Urban Renewal Administration of the Housing and Home Finance Agency, the city of Rochester, N.Y., has just published the first municipally financed complete inner-city river inventory and improvement study for the Genesee. Urban renewal powers will be used in Rochester in selected riverfront areas. In New Bedford, Boston, Philadelphia, New Haven, Annapolis, Buffalo, Louisville, Nashville, Baltimore, Georgetown, District of Columbia, and others,

renewal is being effectively used or proposed for waterfront beautifications and improvements.

These program requirements are suggested:

1. Needed on a national scale are inventories and design plans as part of general plans and urban designs for all city, town, and village waterfronts and water area designs. Federal and State financing of such inventories and design plans will be essential.

2. Urban renewal powers should be used on an extended scale for creation of new inner-city parks and waterfront improvements. Financing of major improvements such as flood control dams, dikes, retaining walls and landscaping will need Federal aid. Grants for urban beautification in the pending Housing Act of 1965 should clearly include shorelines and water bodies as open space and public land.

3. Urban metropolitan river systems such as the Hudson or the Delaware from Trenton, N.J., to Wilmington, Del., or the San Francisco Bay area should be planned for multipurpose uses with appearance, recreation, and utility in balance. Federal and State aid will be essential both for planning and effectuation.

4. Preservation of all historic values in waterfronts is essential as in New Bedford, Annapolis, Savannah, and New Orleans. Here again, renewal powers are either essential or desirable.

5. The urbanizing ocean coasts, Great Lakes shores, and major river systems require landscape protection and beautification which must be added to Federal legislation for river basin commissions and the establishment of a national water resources council as per multipurpose planning policy procedures recommended by the President's Water Resources Council in May 1962 and current legislative proposals.

6. New urban coasts as in Connecticut, Florida, and southern California are essential to maximize water usage and improve appearance of water bodies, provide storm control, bathing, boating, and wild-life protection.

7. Pollution elimination is universally mandatory. Federal and State laws and financial aid are required. All urban rivers should be clean enough for swimming.

8. National harbors and ports are a disgrace. Cleanup and rebuilding programs are imperative to promote efficiency, beauty and sanitation.

These methods are suggested:

1. Continuing national review of all current Federal, State, and local legislation and budgets relating to above requirements.
2. Legislative drafting systems to meet inadequacies of current programs.
3. Organization of special interest groups for promotion of programs, including all related professional organizations.
4. Research, design experiments and competitions, public education.

There are currently before Congress, several legislative programs which specifically relate to our interest this afternoon. There is S. 21 or H.R. 1111, a bill providing for the optimum development of the Nation's natural resources through the coordinated planning of water and related resources, through the establishment of a Water Resources Council and River Basin Planning Commissions and through providing financial assistance to the States in order to increase State participation in such planning. The United States has been divided into river basins which these river basin commissions will supervise.

The law does not specifically state as yet that beautification is a major and essential function of any of these commissions. I want to urge that the pending legislation be amended or clarified so that the sections dealing with river basin commissions and their functions will go beyond—and I am quoting here—“the preparing and keeping up to date of a comprehensive, joint plan for Federal, State, and local and nongovernmental resources,” and so on. For the collection of data, planning, and construction of projects, I urge that the purpose of this conference be instilled into this legislation.

My recommendations for programs are based somewhat on that, and the other pending bill that Mr. Slayton mentioned this morning, the Housing and Urban Development Act of 1965 and section 805 which provides for urban beautification and improvement. This bill, as it is presently written, and it has just been reported out of the House committee, provides for Federal aid for the beautification of land and the comprehensive plan development of a locality for the greater use and enjoyment of open space and other public lands in urban areas. Of course, nothing could be more important, but the law, as presently written, does not include an open space on waterfronts or water areas, and I urge that we seriously consider and recommend to the appropriate Members of Congress and to the President that this be clarified so there is no question that waterfronts and land are included in this beautification and improvement

program. We should make certain that we get started this year on this program.

Mr. CAULFIELD. I have been asked to speak this afternoon concerning the Federal, State, and local planning process as envisioned by legislation about to be passed, from the point of view of getting all the values that we seek in our society fulfilled through this water and related land planning device.

My colleagues this afternoon have made specific suggestions for beautification and greater direct human use of urban waterfronts along rivers, lakes, harbors, and seacoast. This residential, recreational, scenic, fish and wildlife use of such water-related land areas is in direct conflict with long-standing use of waterfronts as industrial locations, railroad terminals and navigation ports.

Also, as urban areas expand, the issue arises as to the appropriate use of stretches of rivers that will be urban 50 or 60 years from now. For example, as metropolitan Washington expands this would involve the Potomac between here and Harpers Ferry. Urban areas, now and in the future, are parts of large river basins. What we need, as I see it, is much better and more intensive Federal, State, and local comprehensive planning to obtain the type of well-planned action that participants in this conference so greatly desire.

On the Potomac, as President Johnson has directed, we are conducting a special planning effort to make it a model of conservation for the whole country. But, more broadly, we are on the threshold of greatly improved water and related land resource basin planning throughout the country. Now in conference between the House of Representatives and the Senate, and expected to pass soon, is the Water Resources Planning Act which Mr. Feiss has already made reference to. Under title II of that act, Federal-State River Basin Planning Commissions can be established, chaired by an appointee of the President and on which the Federal agencies concerned and the States will be represented.

The traditional Federal involvement in rivers has been principally in developing them for water supply, flood control, navigation, power, and more recently pollution control. Now the related land areas can come into their own, as I see it. First, we have the financial help provided by last year's enactment of the Land and Water Conservation Fund to provide funds for land acquisition. We have the Open Space Act and the amendments which will broaden and strengthen it. We are getting a new focus on urban renewal, hope-

fully, from this conference. There are the proposed landscaping enhancement proposals before the Congress, to which reference has already been made. These, of course, are worthy of your support.

I would refer also to the Wild Rivers bill. The Wild Rivers bill is not just concerned with the wilderness areas of our country. It has advanced sharply the concept of alternative use of rivers for scenic beauty versus storage for uses such as water supply, flood control, and power. Experience on rivers such as the Hudson and St. Croix has shown the need for this.

It is an essential fact of planning that we plan for alternatives. In this way the public can express its desire, where for example, the cheaper plans might desecrate beauty. But water-related land will never be properly planned, if State and local governments are not full partners in the planning process. This is the importance, as I see it, of title II of the Water Resources Planning Act, for it is they who must plan to make specific renewal of waterfront lands.

Under our constitutional system it cannot be the Federal bureaucrats who do the specific planning for waterfront lands. It must be non-Federal people working on the subject. It is the State and local function to zone industrial location from the standpoint of scenic beauty and from the point of view of handling the pollution problem, both air and water. It is they who must regulate urban and suburban erosion of land as a source of pollution. It cannot be the Federal Government. Pollution control generally, including sewage treatment, is a local function supplemented on interstate and navigational bases by Federal law. It is very important to always remember that State and local governments must provide, one way or another, the organized source to meet the reimbursement requirements of the Federal Government for many developments which are provided under Federal legislation.

Not only do Federal, State, and local governments require an official planning environment as provided under title II of the Water Resources Planning Act, but the private groups will become even more important than ever in the past, by reason of the concerns of this conference. It is only private groups which are organized in the community to recognize the values of wild rivers, or scenic beauty, or recreational requirements for clean water. They provide a consciousness in the basin and in the city of these values. It is through them that these values are discussed in the newspapers and elsewhere. It is only in this environment that the Federal, State, and local gov-

ernment planners can be responsive in preparing alternative plans that could possibly meet these very needs of the people in the community.

It is not only on the Potomac where we have a historic problem, for 50 years, of considering how the river should be used. Right now, as many of you know, San Francisco Bay may be filled in and a large residential development established. In San Francisco Bay, unless these questions of alternative use of the area as a scenic and recreational resource are fully discussed and private people participate along with the government planners, we will have a result which I am sure many of us would not want 50 years from now.

The Great Lakes are another area of great concern where this type of Federal, State, and local planning is required. The hopeful development in Jersey City towards turning waterfront areas into parklands associated with the Statue of Liberty is a beginning in the way of waterfront renovation.

I suggest that we, at Federal, State, local, and private levels, are on the threshold of new opportunity with the Water Resources Planning Act. I trust that we will all support this type of endeavor to realize all the values that can be achieved from our water and related land, not only for the waterfront but for the whole basin in each of our river basins.

Representative BOLTON. First, I want to thank Mr. Feiss for mentioning Shaker Lakes in Cleveland. They are the last bit of beauty we have left and the unconscionable engineers are considering putting a highway through them, just to let a few people get to the bus a little faster. We feel poisonous about that.

It is also very good to note that the President has called for the Potomac to be the model for the various things that we all hope will be accomplished.

It is especially good having this conference put emphasis on new methods. We can no longer use the old ways, when preservation of natural beauty was primarily in private hands. I am happy to be able to bring to you something of a new method which has been tried.

The decade ending this month has been one of incredible change in the preservation-conservation movement.

My task today is to report to you on that change as we, in the Accokeek Foundation have lived through it, and to indicate the new areas of change we see ahead.

As an example, let us take the events as they have evolved concerning the most famous of our national shrines, Mount Vernon, the home of our first President, George Washington.

A decade ago, we set out to protect the visual environment of Mount Vernon, America's No. 1 historical shrine.

Up to that time, preservation was primarily in private hands. For example, a century ago, Mount Vernon itself was offered to both the Federal Government and the State of Virginia for preservation. Both refused.

A frail woman, Ann Pamela Cunningham, undertook the task, created the Mount Vernon Ladies' Association of the Union. This private group purchased and still preserves this national shrine.

Miss Cunningham's parting injunction was, "Let one spot in this grand country of ours be saved from change. Upon you rests this duty."

In 1955 the Maryland shore opposite Mount Vernon was threatened with the wave of expansion from the District of Columbia.

An oil tank farm was projected for the shoreline in the center of the view that thrills millions of visitors each year.

As Vice Regent from Ohio of the Mount Vernon Ladies' Association, I accepted Miss Cunningham's charge, and I used some funds which had come to me by inheritance to acquire the property to preserve it.

This was just the beginning. During the next few years, additional land was acquired by the Accokeek Foundation, and others came to our aid.

Then the unthinking local agency, armed with the power of eminent domain, determined to condemn the land we sought to preserve to use for a sewage treatment plant and its attendant development.

No private entity could withstand that threat. We had to seek government help.

No help was available from local or State governments. This forced the Congress to counter the local threat. In 1961 the area was delineated as a national park, based on lands to be donated by the foundations along the riverfront, and donations by private owners of science easements on a much greater area.

Skeptics in government predicted freely that no scenic easements by the average citizens would ever be donated. They stated outright

that government purchase was the only solution which had ever worked.

In this day of big government and big corporations, it sometimes seems that the individual has become superfluous, and the great engines of government and corporations will replace him. But our project created a place for the individual. I am proud to report that the owners of 120 parcels of land have voluntarily donated scenic easements on their own properties to make the project possible.

This is the greatest joining together of private, foundation, and governmental effort in such an undertaking.

In recognition of the generosity of private landowners' contributions, the State of Maryland has pioneered tax reform legislation to encourage donation of easements. To make this possible, it was necessary to amend the State constitution, pass statewide policy legislation, and then to amend the State Tax Code, and ultimately to change the county codes. But this model tax reform which brings local tax and natural beauty policies into harmony, is now well on its way to completion, for all to examine.

Our task is far from finished. But we have explored some exciting new roads. The inquiries which come to us from many States in our Union, and from foreign lands, show the rising interests in these new looks of preservation, and the part the individual can play. The officials of the executive departments, who jeered at our efforts, now cheerfully follow the path.

I have often felt there will never be enough money in the public treasury to do all that is necessary for preservation and conservation of natural beauty. But there is no limit to what imaginative programs utilizing new approaches to public and private cooperation can do.

The experience of our first decade is heartening proof of this belief.

Because we had a problem which could not be solved by existing methods and could not wait, we had to pioneer some of these new techniques of preservation. We have made only a beginning.

The next step is clear. This White House conference must now call for a major effort to develop the tremendous potential locked up in new types of public-private cooperation. Through this effort, we can, and will, evolve new and better tools for preservation and conservation, on a much broader base.

We of the Accokeek Foundation are ready to help to the best of our ability—if you do your part.

Questions and Discussion

HAROLD WISE. I want to make some remarks about the Army Corps of Engineers. I think it is high time that we stopped tolerating the shocking and brutal actions of the Army Corps of Engineers.

I did a redevelopment planning job in the downtown, central area of Santa Cruz, Calif., about ten years ago. This area was less than a mile from the ocean and a part of a major seaside resort. They had had a flood and the Corps was improving the channel of the San Lorenzo River through the middle of the project. We wanted to take advantage of this opportunity and to make a pleasant and attractive park around the river. We proposed a grass lined channel as wide as necessary for flood control purposes but we lost the battle to the riprap-efficiency boys of the Corps of Engineers. To this day I cannot understand their reasoning.

I brought a book along called "The Wonder of Water" by Erle Stanley Gardner; if it is good enough for Perry Mason, it is good enough for me. Let me quote about the Sacramento River:

Miles and miles of trees have been torn up. The once picturesque lagoons have become mere canals fenced in with rock-faced levees. California has lost much of its scenic and recreational charm as a result. If, within the next three or four years, we are told that our systems of dams, millions of dollars invested, have lessened the damages of floods, the barren, treeless levees with the rock-faces reflecting shimmering heat will be a tragic reminder of our national disregard for natural beauty and our passion to destroy and change in blind worship of the god of efficiency.

I recommend legislation that would provide that each and every flood control project of the Army Corps of Engineers be referred to the governor of the State within which this takes place for comment and recommendation as to the natural beauty impact of the proposed public works.

Mrs. DONALD McLAUGHLIN. Mr. Chairman and members of the panel, it is very heartening that you are aware of the plight of Lake Tahoe and San Francisco Bay; in fact, the waters of Lake Tahoe can turn brown and two-thirds of San Francisco Bay can be filled.

As a delegate from California, I wish to propose that the outstanding water areas of the United States be designated national

scenic water recreational landmarks and be safeguarded from any public or private projects and programs that might destroy their beauty. Among areas in California with which we are deeply concerned are San Francisco Bay and Lake Tahoe.

We suggest that criteria for determining the public interest in all major water areas be established for the immediate guidance of local, State, and Federal agencies.

WILLIAM MOORE. Engineers have not fared very well here. I think that some of this criticism is no doubt justified, but I also think it is well to remember that engineers design what the people and clients are willing to pay for. Mrs. Owings made some reference to that this morning. Even the Army Engineers, I think, would be glad to design facilities which had the qualities that we would like. Being a boater and liking to go up the Sacramento River, I endorse the comments about the Sacramento River. However, what is needed is some basis for criteria.

Every project, even a beautiful one, must have a price tag. We need some way—and I think this is not impossible—to assess or appraise a budget for the incremental values that we would like to see built into these projects. I think this can be done on the basis of an objective appraisal as to the over-all impact in the area and in the community. This is not easy, and it cannot be done precisely, but I think it would be worth the study.

Mrs. BOLTON. Will the gentleman yield?

I would like to say that I would be reluctant to agree if it were always based on cost. The price is not the ultimate thing. Beauty is the ultimate.

SAM ZISMAN. I would like to make a partial response to this and a proposal or suggestion.

One of the problems involved is not the absolute cost of any given individual program, but the way funds are available or used among a number of programs. This seems to me one of the hurts of our present approach. It seems to me that somehow we have got to find methods, approaches, means to make use of the funds which are made available, both public and private, to do the greatest job possible, not any particular separate program. Part of the difficulty, for example, with the programs of the Corps of Engineers is that they establish their basis of cost and benefits within very narrow limits. They do not take into account the problems of amenities

and beauty and so on, and yet these are a fundamental part of the range of values.

I would like to suggest, Mr. Chairman, that in the new housing bill now before Congress, a provision be included for demonstration projects. This has been done in a number of other pieces of legislation where the Congress has made money available for certain kinds of demonstration projects within a certain field. I would like to suggest that these demonstration programs be applied, at least in some instances, for those kinds of situations as, for example, in waterfronts, whereby all the agencies of the Federal and local governments and any other private interest concerned can be coordinated in a single program.

Most of the language of these demonstration programs, the provisions of the act, are so written as to give a great deal of leeway. I think with administrative approval and with the provision of funds by the Congress it will be perfectly possible to have a half dozen or a dozen demonstration projects throughout the country to indicate how the waterfront can be developed for utility and beauty as well.

The question was asked this morning by Mr. Davis—are the cities ready? I know of several instances where the cities are ready. The Austin Town Lake project, 6 miles of waterfront on both sides in the City of Austin, Tex., is now ready to undertake such a demonstration project. I could mention others.

One of the very real difficulties we find in our work at the local level is the fracturing of programs and the fracturing of the expenditure of funds. If somehow we can find a way of working so that the Federal programs, as well as the local programs, are coordinated rather than done piecemeal and in conflict with one another, I think we can find a very good way of meeting some of our problems.

Mr. WIRTH. I would like to make a comment on this. I have had a good example.

In certain flood control activities in Florida, the Corps of Engineers has drained all the fresh water out of the Everglades. So this year all of the birds left, and they left their nests and young. The Corps of Engineers gave no consideration whatsoever to the Everglades and the fact that they needed fresh water along with the salt water. That is an example of why I recommended that there be a central agency to review every one of these projects before anything is started.

Here is a State that gave the government 1.5 million acres and \$2 million to establish the Everglades National Park, and this year the

birds had to leave their nests with young in them because they did not have the habitat. The Corps gave no consideration to the need for fresh water in the Everglades.

I go back to my recommendation on the panel discussion, that there should be a central agency to take into consideration all values. I don't really blame the Corps of Engineers in one way because they do not know those values and can't possibly get them without going to some central agency that can check them out. Their project went through Congress before this problem ever came up. I think that having a central agency to coordinate all angles before a project is started is vitally important.

Mr. FEISS. In line with what both Mr. Slayton and Mr. Wirth have said, I wonder whether, if the legislation now pending passes, these new river basin commissions would not be the central focal point. Presidential appointments of the citizen members of these commissions provide a point around which these various questions should revolve. I am not saying the proposal for demonstration and grants would not be valid at this time, but it seems to me the question here is one that relates to a totally new program. The legislation would establish a program which would set up a kind of mechanism that should make it possible for all of the Federal, State, and local agencies to come to one point for a discussion of the very kind of problems Mr. Wirth and others this afternoon are talking about here.

Mr. Chairman, may I cite one little instance of a recent local demonstration grant, if you want to call it that, without Federal funds? The city of Rochester, N.Y., with its own funds has just completed an in-town study of the Genesee River Valley, including design plans for the river and economic development plans simultaneously with engineering water studies involved. As far as I know, this is the first modern, up-to-date study of an urban river within the boundaries of a city. There are larger studies of the Genesee being undertaken by the Genesee River Policy Body, but I am speaking here of the 18 miles of the length of the river within the city itself.

DONALD WOOD. Several years ago the Housing and Home Finance Agency gave us a section 314 demonstration grant to study the applicability of urban renewal techniques to waterfronts. Our main report has not been published. However, tomorrow I am discussing the final text with the people from HHFA. Our

technical supplement has very recently been published. I would suggest that, while this study will not give an answer to all the questions raised here, it might have some value to those of you who are in urban areas.

I think urban renewal will be of great help in making waterfront land available in the centers of cities and perhaps it will release pressure on other land.

The second point I will make very quickly is that in our State, in local and regional planning, we are putting a good deal of emphasis on prohibition of dumping on shorelines these days and trying to keep trash out of flood plains.

ROBERT H. EYRE. I am interested in knowing if, in any of the laws proposed, there is any incentive for existing industry or railroads which adjoin the waterfront to abandon trackage or allow easements to make the shoreline available.

Is there something in the law that Mr. Wirth and Mrs. Bolton proposed that does not already exist?

MR. FEISS. I know of nothing in the proposed legislation that would cover these particular points. It is very important that they be added because we do have, just as I mentioned earlier in respect to the Delaware River Basin, serious blight in what might be called nonurban areas caused by bad waterfront conditions, abandoned railroad tracks, and so on. This would be a very useful addition to the legislation.

FRANK GREGG. Do you want to address yourselves to the difference between the Senate and House versions of amendments to the Federal Water Pollution Act which are now pending? You will recall that the Senate version responds to the President's request for a broader, stronger Federal program of upgraded water quality standards. Many of us have some doubts that the House version does, and I think it would be ironic and most unfortunate if this conference did not strongly support the President by addressing itself to the basic issues posed by the two bills.

DAVID BROWER. In San Francisco we are filling the bay, as you have heard. Nearby we have wrecked mile after mile of streams in the process of taking out the redwoods. Where once we had a heritage, we now have nothing. Everything is going.

Wilderness was not on the agenda for this conference and we understand why. However, since wilderness is one of the places

where some of our best water comes from, I would like to suggest that we append as a footnote to the conference the proceedings from the conference we had in San Francisco six weeks ago. I suggest this not so much for wilderness as for what that conference says about the people problem that we have in California now. We found out in that conference that we would soon cut our last redwoods, fill our last bay, dam our last great canyon, and lose other such things, unless man soon decides that it is not essential for him to double his population every 40 years—or every 15 years as we do it in California. This is one problem that man does not have to assume he can't do anything about.

I think that possibly this panel might point out in its final recommendations that the President should schedule a White House Conference on Population Control, wherein the talent represented here could attack this population problem, which seems to underlie all the other problems we have been talking about.

Statements Submitted for the Record

MILO W. HOISVEEN. Giant reservoirs have been constructed on the Missouri River in the States of South Dakota, North Dakota, and Montana. These reservoirs permit the incoming waters to drop their silt loads. The clear water is repeatedly discharged from the series of reservoirs for downstream use. It immediately endeavors to pick up its former silt load by eroding the banks and degrading the channel. Hundreds of acres of land are stolen by the river from landowners adjacent to the stream each year through erosion.

Landowners in our democracy have historically defended their land even if with their life. Protecting land against the river is expensive; consequently, he uses whatever means are available to him. He attempts to retard erosion by bulldozing trees over the bank or installing riprap through the use of old car bodies. Both are unsightly and contribute ugliness to the many pleasure boat passengers that frequent the river. While those reaches of the river below the system of reservoirs which are used for navigation can be protected without cost to the landowner and the navigator, the landowner or a legal entity in these areas where barges are not in evidence must furnish costly assurances which are difficult to comply with.

It is suggested that the White House Conference on Natural Beauty urge that bank stabilization be provided in compliance with naviga-

tion criteria and assurances so the natural beauty and historical sites of these areas be retained for present and future generations.

PATRICK HORSBRUGH. Particular attention should be given to the matter of water and transportation. These indivisible topics seldom receive the extent and study they warrant. The range of relevance varies from the inheritance of circumstances past to inventions of the immediate future.

The problem divides in two distinct parts: (1) The consequences arising from outmoded services and the reuse opportunities of harborage and railroad acreages. (2) The demands to be expected from the introduction of new vehicles and systems of movement and storage, such as hovercraft, dracones and vertical flight.

Each of these systems will inevitably make use of water frontage, both shallow and deep, and will invade areas previously believed to be inaccessible. It is essential that the physical and economic pressure which these new vehicles portend should be explored in respect to all conditions of water frontage around the coasts, along the major rivers and around the major lakes. This is essentially a matter of imaginative coordination of existing data from many sources. The initiative should still rest with the Department of the Interior.

DONALD W. INSALL. Why do we waste our waterways? In London, England, our streets are so crammed with vehicles that if they had flat tops, you could walk along them. Yet Father Thames is empty except for the occasional police boat. Why?

Do you remember the joy of looking at water (clean water) of walking by it and of traveling on it? Can we not use this opportunity? Water is level and beautiful and pedestrians like level and beautiful walks. Why not more waterside walkways? Waterways are continuous and have few traffic signals, few obstacles. Why not more water buses?

The riverside strand and river passenger travel are the most neglected joy of all our cities both in Britain and in the United States.

JOHN P. MOSER. While stream pollution is a serious problem, it is encouraging to note that in the case of one industry, voluntary corrective action is reaching a successful outcome. After June 30, no more "hard" detergents will be manufactured for United States consumption. Already most of the output of detergent plants is of

the soft type and foaming on streams from this source will soon be a thing of the past.

It took ten years of research and development to come up with product ingredients, such as the new LAS, that will wash efficiently and yet be broken down rapidly by bacteria after they go down the drain.

It should be noted that while detergent residues in waste water can cause foam in concentrations as low as one part per million, they never have been a health hazard. While this one cause of foam will disappear, the serious 90 percent of other pollutants still remains. Because clean water is indispensable for the functioning of the products of the soap and detergent industry, it has a continuing interest in clean water programs.

This, I believe, is a good demonstration of the social responsibility of numbers of corporations working voluntarily toward cleaner water without any expense to the government.

Dr. ROGER REVELLE. I would like to put four ideas briefly on the table:

First, as to education. In Europe, the river is the heart of the city. Try to think of Paris without the Seine, Florence without the Arno, or London without the Thames. In the United States, the river is usually looked at as a giant sewer, often politely called a drain, and as a convenient route for high speed highways. We Americans, both children and adults, need to educate ourselves about the wonder and beauty of the rivers that flow through our cities.

Second, about riverbanks and "air rights." Most respectable rivers curve and meander as they wander through the city. If the highway engineers believed their own statements about using the shortest and straightest route from point to point, they would seldom design a freeway along a riverbank. They must really use these banks, in part because they are nearly level, and in part because they are public lands and hence land acquisition costs are low. With modern earth moving machinery, hills are not a serious problem. With the new ideas about "air rights" for giant buildings over super highways, the problem of land acquisition costs for these highways may well disappear, and with it the justification for routing such highways along riverbanks. On the other hand, exploitation of existing air rights along riverbanks and lakeshores, for example those belonging to railroads, must be very carefully controlled, else the potential beauty and meaning of the river as the heart of the city

may never be fulfilled. We need to use much more widely and effectively the concept of the "scenic easement" that Stewart Udall has invoked along the Potomac.

Third, about stretching the shorelines. Riverbanks and bay shores near cities, indeed all the shorelines along our seacoasts and lakes, are one of our most precious assets, for they are almost one dimensional, only a narrow line or strip, rather than a broad area. To make room for our growing population to enjoy these narrow spaces, we need to stretch our shorelines by wrinkling them. We can do this by building bays, bars, islands, and peninsulas along the shores. The city of Chicago is doing an exciting job of this kind on its Lake Michigan shoreline, and it is also beginning to take the Chicago River seriously as a priceless civic asset.

Fourth, the problem of multiple jurisdictions. In San Francisco Bay, it is almost impossible to develop and carry through a plan for the optimum human use of the Bay because of the problem of conflicting, overlapping, and multiple public jurisdiction. No town, city, or district has sufficient control to do anything really satisfactory in restoring and building the beauty of the Bay. Each little jurisdiction is anxious to expand its taxable area by filling in its share of the Bay front, and to reduce its costs of waste disposal by using the Bay as a convenient dumping ground.

What is needed is a single San Francisco Bay authority charged with planning and carrying through development of the Bay as one of the great human assets of the United States. Here I suggest the Federal Government could help by using the carrot of Federal grants and the stick or threat of Federal control to encourage the establishment of such a unified activity. It is easy to say that San Francisco Bay is a local California problem, but, in fact, San Francisco Bay is a priceless asset for all Americans, in some sense the symbol of our country, and its development must be the concern of all Americans.

Dr. J. HAROLD SEVERAID. The city of Sacramento and the State of California have cooperatively developed a redevelopment plan for Old Sacramento which includes a complete renovation of the city's waterfront into a beautiful aquatic park. Its published plan is available from the Sacramento Redevelopment Agency. It may well serve as one of the demonstration programs Mr. Dworsky called for. This project will also involve the historical restoration noted by Mr. Tunnard.

CHAPTER 8

THE DESIGN OF THE HIGHWAY

1:30 p.m., Monday, May 24

The Chairman, Mr. BABCOCK. There are numerous facets in the design of the highway. It must be planned to care for land development and traffic volumes many years in the future. It must be designed to have maximum possible built-in safety features. It must be located to do the minimum possible damage to private and public property. It must be fitting and proper in terms of its surrounding environment. Finally, all of these elements must be put together in a package that the public is willing to pay for. Providing such a highway system for a nation on wheels is a most challenging problem for all governmental agencies.

Today we are not here to discuss this total problem or the merits of various forms of transportation but rather, the problem as it relates to highway design and natural beauty. The matter of highway design and beauty is obviously relative and there will be many diversified opinions pertaining to it. There is the matter of the design of the highway itself in terms of its over-all attractiveness. There is the matter of the effect that the highway will have upon the natural landscape and existing environment. There is the matter of the over-all panorama to be seen by the motorist. There is the matter of superimposing a new urban highway network upon an existing metropolitan complex to eliminate existing traffic strangulation and to prevent further economic decay. These and many other matters must be thoroughly analyzed if we are to design efficient and safe highways that have built-in attractiveness.

Members of the Panel on The Design of the Highway were William Babcock (Chairman), Colin D. Buchanan, John Clarkeson, Lawrence Halprin, Boris Pushkarev, John J. Ryan, Francis W. Sargent, and Rex M. Whitton. Staff Associate was James L. Shotwell.

To panelists and participants alike I would caution that we are not here to waste each other's time in interdisciplinary disputes relative to past responsibilities for highway design. We are not here to spend our time outlining mistakes of the past made by engineers, planners, or others unless examples of these mistakes can show us ways to do our job better. Rather, we have been called here to develop specific proposals for the implementation of a positive action program. What then is this action program that we are to develop?

It has been stated most adequately and eloquently by the President in his message to Congress: "I hope that all levels of government, our planners and builders will remember that highway beautification is more than a matter of planting trees or setting aside scenic areas. The roads themselves must reflect, in location and design, increased respect for the natural and social integrity and unity of the landscape and communities through which they pass."

Let us, therefore, now move ahead to develop better working relationships between all disciplines and let us develop new planning and design techniques such that we may positively implement the fine statement of the President.

Mr. SARGENT. First let me emphasize, as a career conservationist turned roadbuilder, that I am a most enthusiastic supporter of the movement for a "Green America." We must acquire broader rights-of-way to protect our scenic areas; we must remove or screen junkyards and borrow pits, and plan for the harmonious use of natural terrain.

I am sure public funds are put to the best use in making motoring a delight to the eye and satisfying to the soul as we build our interstate highways through the open countryside.

But let me ask this—is there not something very incongruous in highway planning that calls for more beauty in the country, and then creates the very antithesis of the green America concept—ugly urban monsters—in our cities?

Instead of highways with wide green median strips, built to seek out and take advantage of scenic vistas in the open spaces, in our cities we frequently build highways on steel stilts, sometimes four tiers of them, so stark and ungainly that millions are offended by them daily.

None can dispute the statement that some of America's freeways are hideous. Granted they are utilitarian, and undoubtedly less

expensive than more imaginative and tasteful designs—but they still are disfigurements of the cityscape.

The time has come to give aesthetics an equal vote in the planning and construction of highways in metropolitan America. It is time to stop building ugly urban monsters in the name of economy alone. We must look beyond the dollar. We must look for ways to bring grace and symmetry to the hearts of our cities.

Granted it will add more, maybe much more, to original construction costs, but the cities of this Nation will be living with these structures long after the bonds have been amortized.

I ask this conference to look for ways to bring the Green America concept into the hearts of our Nation's cities, where three-fourths of the population will live by the year 2000.

Massachusetts, in step with the rest of the Nation, has just passed the halfway mark in the construction of its interstate highway system. Like the rest of the country, our department of public works is presently confronted with the task of completing this program with the construction of final portions in the more densely populated and developed areas of our State.

Through historic Boston and Cambridge, we are building a circumferential highway—the inner belt—that forms a hub from which radiate the express highways of the region. This is the most challenging project that has ever confronted our State. We must preserve the character of this area, which includes stretches of historic parkland, two famous museums, and several of the Nation's eminent universities.

We are examining all concepts and designs, from tunnels to graceful aerial structures. We must protect what we have and enhance rather than detract from the pleasant setting of our metropolitan area. We must develop the best plan. To accomplish this we have set up a volunteer blue ribbon committee of architects, city planners, and civic leaders to assist our department. Our aim is to protect the dignity and grace of this area. We know it will cost more, but why can't aesthetics have an equal seat at the conference table with construction costs and road user benefits?

We need the highways in our urban centers to save them from choking on their own traffic. But let's not settle for less than the best—for what we build today is a legacy to our great-grandchildren.

Let's make our cities more liveable and pleasant.

I am sure you will agree that beauty in our cities should also have a price tag.

I urge, therefore, that the Bureau of Public Roads add to its criteria, benefits and allowances for urban aesthetics in its highway program. We have put the Interstate Highway Program to work for America and have seen it fulfill much of its promise—but its fulfillment will be even greater when aesthetics become, in America, a full-fledged partner with utility.

Mr. RYAN. My colleagues will very ably deal with certain phases of the design of highways from their respective viewpoints as members of a design team. I will discuss the role of the landscape architect on the design team and outline certain items of landscape work which should be considered in the design of most highways, be they rural or urban.

Man has long been aware of the beauty and appearance of the roads and the regions he travels and literature abounds in references to his observations on these subjects. That we Americans, probably the most mobile people in history, should have a deep concern about the appearances of what we see while traveling is a natural and desirable thing.

A major objective of the highway design team should be to assure that the potential for natural beauty in and along the highways is fully utilized. Beauty in the design of the highway must be deliberately sought; it seldom comes about by accident. This applies both to rural and urban highways.

Having accepted this basic premise that beauty must be deliberately sought, how do we achieve it?

First, we must develop a concept of what we mean by natural beauty. This concept probably should be a composite one rather than the opinion of one man. Beauty is in the eye of the beholder, and you are going to have lots of beholders. One essential step in the development of a concept of natural beauty is that we must recognize and fully utilize the best of the local scenery, whatever it is, be it mountains, deserts, farmland, or a city scene.

Second, the highway design team should, in the earliest stage of preliminary design, make an aesthetic inventory along the proposed route of the highway. This inventory will include all those natural features within a rather broad strip, which could contribute to the making of a beautiful highway including possible views and areas for essential landscaping. The inventory will also have a negative or nonaesthetic heading under which should be listed those features or developments which will detract from the appearance of the

highway and which must be removed, screened, controlled, or restored.

With the results of the aesthetic inventory at hand, the design team can analyze the potential for beauty for each highway project and determine the basic aesthetic character of the highway to be built. These determinations will vary greatly according to the part of the country and class of highway. Certain broad and perhaps some detailed design requirements concerning the aesthetic aspects of the engineering and landscape components for the specific project will result from the referenced inventory, analysis, and determination.

To implement the broad design requirements, checklists for the various design features of the highway should be prepared to insure their consideration at the plan-making level. The engineering checklist concerned with alignment and grade would be the most important and an effective one could be put together by the many talented design engineers and other members of the design team.

Assuming that the basic landscape character sought has been decided by the design team, the landscape design checklist should contain design features such as:

1. Have we enough right-of-way to produce the aesthetic and landscape character determined by the design team?
2. What natural or historical features are to be preserved?
3. Are sites for scenic overlooks and rest areas available?
4. What special grading requirements are necessary?
5. Do we need special specifications for clearing and grubbing the trees on the right-of-way to minimize damage, for defining work limits, and for proper control of borrow pits and spoil areas?
6. What grasses do we need on our turf areas for appearance and to control erosion?
7. What is the appropriate planting needed along the highway?
8. What use should be made of the unused parcels along the highway in urban areas?

The above checklist is only a sample and additional items should be placed on it as required.

The use of section 319 of title 23 U.S.C. enabling the States to obtain land with 100 percent Federal funds for scenic and landscaping purposes can be a terrific help in building and keeping beautiful highways. Make sure your State has enabling legislation to take advantage of this section which is part of the very backbone of our program.

It would also greatly aid in keeping the highways beautiful and litter-free, now that we have them all built, if each State has a strong beautification and anti-litter organization modeled along the lines recommended by Keep America Beautiful.

In conclusion, I would be remiss if I did not tell this distinguished assembly of the semisecret, nonengineering, but highly effective design principle we use so successfully in New York to build our beautiful highways. I quote from a design directive issued by Deputy Chief Engineer B. A. Lefevre. In it he said, "The highway should fit into the landscape like a deer in the woods, not like a bull in a china shop."

Mr. CLARKESON. In the development of the location and design of major highways, two public responsibilities must be discharged.

The obvious one is the development of a roadway for the transportation function, properly meshed with the needs of the area and with other forms of transportation existing or planned. Little disagreement exists today to this planning premise.

Less observed and perhaps less obvious is the social obligation to maintain or create an environment that people, both the driver and the pedestrian, can live in. The highway industry is a major operation on the rural and urban area. The highway effort for the most part is almost totally lacking in creativeness as part of the living landscape.

The interstate system, being constructed on wholly new rights-of-way without the confines of serving abutting property, can lend itself admirably to the development of fine examples of rural and urban scene. Any highway constructed in this program has a quality of durability; if it is a bad influence on the landscape it is bad for a long time. If it is good it will be good for a long time. Because so much of it is enormous—an eight-lane highway runs 125 to 200 feet wide and interchanges run up to 50 acres—it can overwhelm, in size alone, any other architectural, planning, or landscaped area near it.

Since its size is so overwhelming it should and can be planned, designed, and built to complement rather than destroy all within sight of it.

The public obligation of the highway industry requires the adoption of three needed principles:

1. That it will not unwittingly destroy any existing architectural, historic, or other desirable value.

2. That it will complement any existing or proposed future values.

3. That in areas which are presently nondescript or in need of rehabilitation it will be the seed to induce good adjoining development.

Now let's apply these principles—

1. Location.—The continued destruction of other public facilities such as parks, playgrounds and educational institutions is a gross and unwarranted extension of the highway fund. While the dollar value of the land taken appears less, it is only because of a lack of realistic appraisal of the public function destroyed.

In locating the highway, due regard should and can be given to the views both of countryside and cityscape if care is exercised. Merging of the highway plan and other redevelopment programs, too often omitted in the planning, is one way that such locations can aid rather than hurt the urban scene.

2. Design.—One of the difficulties of expressway design is in the elephantine size of many urban and suburban roads. An 8-, 10-, or 12-lane highway is a tremendous thing. The designer is sometimes caught between hiding it under the rug or autocratically bulldozing a wide swath. Neither need be done.

If the multilane highway is broken down into its component parts, none need be in excess of four lanes. And if each such four-lane element is designed as to form and placement, vertically as well as horizontally, all the necessary traffic functions can be performed and each integral section can be designed with a fineness often reserved for good buildings.

In this respect the usual technique is to have an engineering design gussied up by an architect to cover its too obvious rough shell. Such wallpapering techniques serve little or no purpose of permanent environmental value.

The proper procedure is to have the architect involved in all projects and to have him as a prime member of the team in the control of line, grade, and general form. Unnecessary and expensive facing techniques can often be avoided and a sculptural form can be obtained complementary to the area through which the highway traverses.

Design by directive is not in the interest of creating a good highway. Little things, even as little as the indiscriminate use of massive doses of chain-link fence, can destroy an otherwise good design. There are better and cheaper methods of accomplishing the same thing.

Highway design is a custom job and should not be obtained from handbooks as so often is the case.

Do these techniques cost money?

In engineers' or architects' time and thought, yes.

But in the cost of construction they are more apt to save money.

On many rural interstate projects, we have gone to the effort to avoid scars and fit the highway in with the land contour and have saved large amounts of money mostly in items such as rock excavation and river relocations.

In the urban scene such economies are not always available but if the social values which are otherwise destroyed were measured, here too would the public's ultimate cost be reduced.

Mr. BUCHANAN. As one of the few delegates from overseas to this conference, perhaps I may be permitted to spend a moment of my allotted time in expressing my appreciation at having been invited to this distinguished gathering. I feel more than doubtful whether, in the absence of detailed knowledge of conditions and administration in the United States, I can really contribute anything to the solution of problems as they are arising here. But I can say that very much the same problems are arising in Britain, with perhaps the difference that the same forces are arrayed against an environment which tends, in both urban and rural areas, to be small scale, intimate and delicate in character, and therefore all the more susceptible to irretrievable damage.

This panel is concerned with 'The design of the highway.' I do not interpret this as meaning solely the design of expressways or free-ways but the design of all surfaces that carry motor vehicles. This presents one problem in open or rural areas, but an altogether different and much more formidable problem in urban areas. Here the conflict is not between natural beauty and a manmade utility in the form of a highway, but between the circulation of vehicles on the one hand and the safety, convenience and general welfare of the people who occupy the area on the other. Unless highways are properly related to the development of the town they serve, then there is the risk that the beauty will be no more than skindeep.

The essence of the relationship between highways and development is to secure a highway system which permits the efficient circulation of vehicles to destinations without in the process wrecking the environment by the widespread danger, noise, fumes, and vibration of motor vehicles and their universal intrusion into the visual

scene. This is not a matter of planning and beautifying a few major highways; it is a matter of paying over-all attention to urban areas to insure that wherever vehicles penetrate, in back streets as much as in main streets, they do not ruin the surroundings for people.

I think there is only one principle whereby progress can be made. This is gradually to create, inside towns and cities, subareas where considerations of environment are paramount and take precedence over the movement or parking of vehicles. These might be termed "urban rooms." It is here that people will live and work and have their being, and their environmental needs may well limit the amount of traffic to be admitted. The concomitant of urban rooms is to have a corridor system (or highway network) onto which longer movements of vehicles from locality to locality are concentrated, leaving the urban rooms to deal only with their own traffic.

The network as I have described it is essentially a facility for movement. Nevertheless it can be a well-designed utility. There are several aspects to this. It should be good to look at for those people in whose field of view it falls. This includes people who have to live with it in the sense that their dwellings or offices overlook it; and the people who use it when driving or riding in vehicles, whose requirements may be quite different. It should be so sited that it does not carve up areas that by any rights should be homogenous units. It should not be so out of scale with the surroundings that it destroys all sense of urban cohesion. The need to keep it in scale may even be a crucial limiting factor on the amount of traffic that can be handled.

Within the areas which I have described as urban rooms there will be much traffic circulating. Once again, it is only part of the problem to have beautiful circulation routes. The basic question is to see how people can live at close quarters with the motor vehicle.

To this end it seems essential to work toward a code of environmental standards. I see this as merely another step in the long struggle to upgrade the quality of urban surroundings, in which process the definition of standards has played a major role. Overcrowding in dwellings, bad sanitation, lack of ventilation, dampness, lack of daylight and sunlight, insufficient play spaces for children—all these are matters where steady social progress has followed the setting up of standards. I submit that we now need to follow in the same tradition by defining the standards of danger, anxiety, noise, fumes, vibration, and visual intrusion that are to be regarded

as acceptable in relation to motor traffic in our civilized urban areas.

It is a difficult field with a large subjective element in which little serious research work has been carried out, but I think it is fundamental to dealing with traffic in cities.

I think the beautification of highways must be seen as part of this comprehensive process, which, of course, is no less than city planning itself.

If this process be based on the principle that buildings, access ways, and all the material stuff of cities are there for us to mold deliberately for our own convenience and delight, then there is hope that we shall make progress with what is now coming into view, all over the world, as the major social problem for the rest of this century; namely, the form and organization of cities.

Mr. HALPRIN. First I would like to define the parameters for my discussion. I would like to confine my remarks to the design of freeways within dense urban cores, understanding as I do that there are areas out in the countryside for which handsome freeways also must be designed.

Some years ago I was asked by the State Division of Highways in California to work as a consultant on urban freeways. Their intention was, I believe, that I would evolve some technique by which the planting of massed trees and shrubs would screen out the ugly structures and make them beautiful—possibly evolve a technique of parkway design which would make freeways more palatable in a city.

As I began to look into the problem, however, I began to realize in a very clear way that the urban freeway was in fact a new breed of cat and that it had to be designed as such. The more I thought about it the more I realized that most of the principles which had been evolved for freeways in the country were completely wrong in the city.

The city freeway had to deal with the city. The important point was to make the freeway a part of the city—to evolve a new urban form of traffic architecture whose ultimate aim was to improve the city, not just move traffic about.

Handsome freeways can readily be designed for new cities or for new sections of older cities as parkways whose characteristics are similar to freeways in the country with wide rights-of-way, widely separated roadbeds and heavily screened verges.

However, freeway design must find other solutions when inserted into older sections of densely built up, valuable urban cores where land values are high, where existing architectural and urban values are important to preserve, and where residential and commercial areas will be disrupted.

Here are a few of the major points which I consider important in the design of urban freeways.

1. The sinuous, curvilinear pattern of country freeways is inappropriate in the city. It cuts across the existing grid, disrupts neighborhood patterns and leaves odd, difficult-to-integrate pieces. Urban freeways should follow the grid of the city.

2. The wide right-of-way, with variable median strips and planted verges and shoulders, is inappropriate in cities because it wreaks havoc with existing structures, takes too much land off the tax rolls and separates neighborhoods by great swaths cut through a city's fabric.

3. Urban freeways should fit into existing and projected land-use and topographic patterns in a city. They should go between neighborhoods, not through them, or they should go between two different land uses, such as industrial and residential, or utilize topographic changes by sliding along below hills where they cannot be seen.

4. Urban freeways should be condensed and concentrated, not spread out. They should employ urban, not country aesthetics. Accordingly, they must use multilevel, split-level, depressed, and elevated groupings to facilitate concentration of the road bed. As a byproduct, connections across freeways, from one side to the other, become much easier to achieve.

The objection to elevated freeways is, in large measure, I have observed, due to the environment under them, which is usually ugly and unpleasant, devoted to parking lots, bus storage and cyclone fences, and is not the elevated structure itself. The largest single problem in condensation is interchanges, some of which may have to go underground or be designed as parks.

5. Urban freeways should be integrated with the city and not simply be a corridor through it. They should pass through buildings, have shops built with them and other structures such as restaurants and parking garages, integrated into their structure.

6. Freeways should be built as part of a total community development, not unilaterally. If a freeway must pass through a city, its design and construction must involve the total environmental redevelopment of the area through which it passes. To this end many

levels of government as well as private enterprise must join forces to effect complete redevelopment. This should involve building on the air rights over freeways as well as the rebuilding of areas around them. Freeways can then take the lead in generating amenity in a city in the new or rebuilt areas by having parks and playgrounds pass under them, new structures built over them. Ultimately it is the design of the environment of a freeway which counts for more than the actual structure itself.

7. Freeways must be developed as only a part of a total transportation program in which mass transit and other techniques for limiting further car traffic must be established, including the very real possibility that no more freeways should be designed.

Mr. PUSHKAREV. Over 60 percent of the interstate system is now completed or under construction. Thus, unless we want to write off the appearance of the bulk of our freeways, some retroactive measures must be considered. Aside from a major expansion of billboard control to attack the real eyesores in urbanized and commercial areas, and aside from expanding the principle of limited access to suburban local arterials, both of which are covered by different panels, a commitment to rectify some past omissions would mean:

1. Additional right-of-way acquisition, particularly in growing suburban and resort areas, to guarantee, wherever development permits, a 150-foot minimum buffer zone between the edge of shoulder and the taking line.

2. Correction of awkward grading through generous rounding and warping of slopes, flatter embankments, and a substitution, wherever median width and climate permit, of planted earth berms and similar devices for metal barriers.

3. Encouragement of native vegetation on the roadside and more generous artificial landscaping of prominent areas, particularly near urban interchanges. This would utilize upward slopes or down-slopes protected by guardrails, to bring tree growth closer to the road and break the monotony of the wide swath.

On freeways whose location and geometric design are not yet finalized more fundamental improvements are possible via essentially three avenues of approach. The first is a vigorous infusion of aesthetic considerations into design standards for alignment and profile. This would include, on rural and suburban freeways, the use of longer vertical curves, the encouragement of spiral transitions,

the discouragement of tangent alignment and the favoring of long arcs with radii in the 5,000- to 30,000-foot range in open terrain.

I wish to stress that a variable median and independent roadways do not in and of themselves produce beauty, if the alignment is discontinuous. The principles of smooth, continuous alignment are by no means novel, and historically the Bureau of Public Roads and some progressive States, such as the State of New York, have used them for many years. The question now before us is how to encourage the other States to adopt the best standards.

The second avenue of approach is a basic policy decision on, as President Johnson put it, "increased respect for the communities through which [the highways] pass."

This means not just avoiding aesthetic and valuable urban areas but also more greenery, wider buffers, more respect for street geometry, for topography and urban views. Most important, in high density residential and downtown areas the highway must be subordinated to the dominant pedestrian spaces. This rules out elevated or at-grade facilities through these downtown areas and their parks. A depressed lower Manhattan expressway or a depressed Delaware expressway in Philadelphia may cost up to 50 percent more than their above-grade counterparts. But cost-benefit ratio of urban facilities is usually so favorable that even an increase of this magnitude will not throw it out of reason. Progressing beyond that, in our thinking about the second generation of freeways, we should perhaps start thinking of the removal of some existing elevated structures such as the Embarcadero Freeway in San Francisco and the West Side Highway in New York.

Finally, the third avenue of approach has to do with design procedures. There are today engineering consultant firms which include landscape architects, architects and other visually trained professionals on their team, and who have achieved a high level of expertise in refined geometric design and location. These teams should be allowed to specialize in the initial, visually decisive stage of location and geometric layout, while the extremely time consuming, but aesthetically not too relevant phase of preparing working drawings, developing drainage details and computing quantities should be left to firms proficient in these supporting tasks. This is similar to Minoru Yamasaki designing the World Trade Center and Emery Roth & Sons doing the working drawings and is a way to maximize the utilization of scarce talent.

Mr. WHITTON. I am happy that the highway is now being recognized as a possible potential for a more beautiful America. I think that is eminently justified because more people are going to see America through the windows of the highway than any other way. It behooves us to do all we can to make America beautiful from the highway.

Now, of course, I must warn you that there is a difference of opinion among us as to what is a beautiful highway. We have changed our ideas through the years and we have developed differences of opinion and I am talking personally now. When you are in this work as long as I have been, you do change your mind, regardless of what people in the highway departments think.

Highways are for people—and I am reiterating what Mr. Buchanan said—for people who ride on them, and for people who live by them. We must keep this in mind as we design and locate them. The highways must be beautiful as seen from the driver's seat and the backseat driver, and they also must not be a scourge on the community through which they pass.

Highways can be attractive. I am convinced of that, in either the rural or urban areas. They can be attractive by their location, as some of my cohorts have said, by the proper selection of the routes and by the proper selection of the areas through which they pass. They can be beautiful by the design of the highway itself, by how it is fitted into the landscape and how the roadway is graded. They can also be enhanced by plantings along the roadway. All three of these items contribute to making a more beautiful highway.

Highways should serve the local people and meet the local desires as well as the needs of through traffic. We must keep this in mind, too, as we locate and design highways.

Each city and each rural section is an individual problem within itself. It should be approached in that way. Certainly we should work together, and by "we," I mean the local government, the State government and the Federal Government. All these groups should work together in determining what is best for each individual city, and each individual city should take a tremendous interest in what is being done about its highway transportation. Highway transportation is a part of the total transportation and total transportation is a part of the urban planning of the city.

So I would urge, as many of my cohorts have said before, that we utilize each skill that is available in the city and import some if necessary—the skills of architects, landscape architects, highway en-

gineers, and psychologists and all the others. We should bring these together to form the best possible transportation system and the best possible urban plan for our cities in the future because, as someone else said, we are building for a long time in the future. We ought to build well so that we would like to live there.

Questions and Discussion

Mr. WHITTON. I want to ask Mr. Sargent if he would suggest how the rural highways can be designed so that they appear to be part of the area and not just something added to the area.

Mr. SARGENT. Actually my statement referred more to urban highways. I feel this is the biggest part of the problem. I feel that the interstate highways through the countryside are being designed better—every single one. I think we are taking into consideration the harmonious use of the natural terrain. I think that we are becoming more sophisticated in terms of acquiring more lands and providing scenic easements and doing things of this nature.

I personally feel that the matter of planting trees and planting exotic bushes and flowers and so on, perhaps should be de-emphasized. I think it is more important to use the natural growth, to use the trees that are in the region, to use clumps of trees in the median strips along the road than to try to introduce other species. It seems to me that this is more natural and I think it fits into the landscape better.

Mr. HALPRIN. I would like to have the benefit of Professor Buchanan's experience. I do not know how many of you have read his book. It is called *Traffic in Towns*. I recommend it to those of you who have not read it. I wonder if he could give us any indication of what he thinks, on a critical level either good or bad—critical in the real sense of the word—about what we have been doing. Is it either good, bad or how can it be improved?

I know this is a big order.

Mr. BUCHANAN. I was rather anxious to get home in one piece. I did not think I was going to get put on the spot like this, to give a critical appraisal of things.

I do not quite know what to say. But if I could venture a summary I think I would put it like this: As far as rural freeways are concerned, I would think that you have just about brought this now

literally to a fine art. Certainly some of the latest work I think is just as good as one could hope for anywhere.

On the urban freeways, this is a much more difficult problem. As I have seen it, you have done some very good work—at the same time, you won't mind my saying so, terrible things have happened. You seem to be in the position of having pulled yourself to a halt just to take stock of the situation, and this seems to be a wise thing to do.

I think the really important thing is the integration of the urban highway with the land use and city pattern. This is the crux of the problem.

But to me, this question of freeways and movement of traffic on freeways is only part of the problem. You could call it the primary problem, but I think there is an extremely important secondary problem. This is how you deal with the motor vehicle in its intimate circulation around buildings—how you arrange for its parking, how you deal with all the paraphernalia that the motor vehicles need—how you assure that the people in the back streets do not suffer from it.

This, I think, is a very, very difficult problem and one that seems to be arising more in American cities. If I can be quite blunt, if you look at American cities over-all and you add up the total amount of excruciating ugliness associated directly or indirectly with the motor vehicle, then I think it is staggering. If you are going to have beautiful American cities, you've got an enormous job on your hands in that direction alone.

Mr. BABCOCK. I would like to direct one short question to Mr. Pushkarev relative to expanding a little bit about his ideas on how you are going to use landscaping to break the monotony of these wide open swaths you refer to.

Mr. PUSHKAREV. The question here is the charm of the old small country roads—that when one drives over them one is in the landscape. The trees come right up to the edge of the pavement and you are enveloped by trees and by the landscape, whereas on our freeways, for safety reasons, we have to set the trees back so that cars out of control do not hit them. As a result, on each side of the pavement we have a minimum of 30 or up to 80 feet which are denuded of all vegetation for the purpose of safety.

The design issue here is to select those spots where trees can be brought as close to the pavement as possible and still not conflict with the safety criteria. Two such plausible spots are upward slopes

where the car would hit the slope first and the tree later. There we can bring the trees closer in and we could do the same on the downward sides which are protected by guardrails. Thus vegetation can be moved virtually up to the edge of the shoulder and give us a passage through the trees rather than through an open desert.

Mr. SARGENT. I would like to ask Mr. Ryan a question. You and I were talking last night about parkways and the fact that many of the parkways built over the years, and sections of our interstate system, have been constructed with your curvilinear alignment. I wonder if you feel that this principle could be used on many or perhaps even all of our highways, and do you think of examples of this being used well that may be useful to discuss?

Mr. RYAN. Now that we have the example of what you can do with curvilinear alignment, I cannot understand the resistance to using it on a much larger scale. Probably I am getting into deep water, but if it is successful on one section of the interstate in any one State, it should be successful everywhere. I would think that the use of it on the interstate and primary and even on the secondary highways is a basic decision to be made by the chief highway administrator and I suppose this decision would have to be made in light of why we are here. It would logically have to be made by the chief administrator and in the full knowledge of the great interest in the appearance of our highways.

Mr. BUCHANAN. I was very interested in the suggestion Mr. Halprin made about integrating urban freeways with the structure of the city. He said they should not be just a corridor through it. He went on to say that they should pass through buildings, have shops built into them—on the structures, such as restaurants, parking garages, and the like. This opens up the very intriguing idea that you could sit in restaurants, watch the cars swooshing past from the other side of a glass wall. This is indeed a very intriguing idea and obviously a way of saving space. But, Mr. Halprin, would this not pose very formidable problems with real estate people, developers, property owners? How can we do this unless they really revolutionize their attitudes?

Mr. HALPRIN. First, I think there are two questions there. One is: Is it a good idea to do, and second of all, could it be accomplished?

I don't know how many of you have seen some of the things that I am thinking of, which have in fact been done on a rather

limited basis. Some of the new highways in Tokyo, for example, are very difficult to see. One section of the highway is really quite difficult to see because for three stories under this highway there are shops and restaurants. When I went to Tokyo for the Olympic Games a few months ago, I found that it was hard to realize that there was a highway there. It was encased. Certain sections above it were open to the sky. So there was a kind of integration of all these amenities of the city along with the highway. In this particular case it was accomplished by private interests who asked the freeway department to allow them to design and build shops and restaurants under the freeway as the department designed and constructed the freeway.

It was private initiative in a sense on a redevelopment basis combined with government. There are other examples of this kind of thing, too. I submit to your interest the United Nations Building which had in fact a freeway or highway, if you wish to call it that, which was built at the same time that the new United Nations Building was built. This is an integrated conception with the great plaza and everything also over the freeway. Because of the use of the topography, the freeway was opened out to the East River and as you drive along you get the wonderful qualities of the East River. This has been a great amenity for the city and is precisely the kind of thing I am speaking of.

Mr. SARGENT. It seems to me that since we have this intense competition for available land in cities we have got to look more and more to constructing buildings over our highways. I don't see that this need be unattractive. I think it can be done well. In the city of Fall River they are going to build the city hall over the interstate route. I think it is going to be a very attractive structure that will complement the design and really be an asset, rather than a disfigurement to the location. It seems to me that we may and probably eventually will get into constructing buildings, perhaps high-rise housing over, around, and through these highways. It seems to me that this has to be looked at realistically and I can't see why it can't be done in an attractive and ingenious fashion.

Mr. RYAN. I have a question for Mr. Halprin. You mentioned that you should base the design of the freeway within the hard core of the city upon the absorptive capacity for the automobiles. This can vary from just parking maybe 150 cars on the ground to a ten-

story pigeonhole parking. It seems to me it varies so much you couldn't possibly consider it as a basis for any design at all.

Mr. HALPRIN. Quite the reverse; I don't agree. It seems to me that you have to understand that the city comes first. That is to say, the people in the city come first. It is my view that it is very much like this auditorium. In order to keep some configuration in this auditorium, not overloading the air conditioning and seating, we have a certain number of seats in this auditorium which people can occupy. If you get too many it would become an untenable situation and nobody could breathe well even though you are not allowed to smoke here. You can apply the same kind of criteria as this to a building whose capacity is limited, and also to elevators which are in fact doing what freeways ought to do in cities, that is moving a certain number of people through them. You can determine the absorptive capacity of the city in terms of what the city should be doing for its citizens in terms of the environment. That is what Mr. Buchanan was talking about. The capacity is limited and you cannot take any more cars. That is that. You can design it in a way that it will just absorb so many cars. At that point you ought to quit; no more freeways.

Mr. RYAN. In the city of New York they built the Pan American Building. If you were to give the occupants of this building space to park their cars, you would have to tear down everything else in the neighborhood, or build parking garages 25 stories high.

Mr. HALPRIN. My answer to that is you should not then have built the Pan American Building. And I think cities have to accept, too, that they are organisms just as any other organism. Just as any organism cannot proliferate endlessly, cities cannot.

Mr. SARGENT. I wouldn't be surprised if someone proposes consideration of birth control. Is this an appropriate subject for us to discuss?

Mr. BABCOCK. I don't know what the laws are in the District of Columbia.

Mr. WHITTON. Perhaps much to the surprise of a lot of the audience, the Bureau of Public Roads has been resisting for some time the building of extrawide expressways through urban areas and through rural areas. So I was quite interested in what Mr. Clarkeson had to say, that a highway or expressway shouldn't be

over four lanes wide and I would like to have you explain that somewhat further.

Mr. CLARKESON. Mr. Whitton, this is a proposed 12-lane traffic facility.* Four main lanes are in one direction. Four lanes can be treated architecturally without imposing it on people or the city. In this case it is an average of 48 feet in the air, so it lets light and air in. Four lanes of the main highway below grade go in the other direction. No traffic headlight glare and no head-on collisions, for vertical distances are too great for that.

The other four lanes are distributor services to ramps. No one part of it is so big as to restrict the interneighborhood types of city activities.

Now in the case of protecting a recreational area, we could not apply this technique of reducing these things to small elements. These are our proposals for going through a park, an existing historical park. They have not been adopted yet. We have put all eight lanes below ground to permit us to reconstruct the park in its present area and its present elevation. This happens to be the Fens in Boston which is flanked by several museums, many schools, and many pedestrian activities. We have maintained the pedestrian flow, which is the basic benefit of breaking the 12 lanes into its integral 4-lane parts. It can be done nicely.

EDWARD McMAHON. I would like to move from the urban to the rural area where interstate roads are also being built and where a problem exists with which I am familiar. That is the removal of existing facilities completely, taking utilities completely off the right-of-way. Has any thought been given, instead of paying to eliminate the evil, to incorporating it into the over-all planning of the highway right-of-way? By that I mean providing a corridor for underground communication and power circuits, even though admittedly, at the present time, the technology will not allow full utilization at the electrical level. If this has not been considered, I would suggest that this conference make this one of its recommendations.

Mr. SARGENT. Who is going to pay for it?

HAROLD GILLIAM. I would like to get the reaction of the panel to a couple of possible legislative changes which I think embody some

*Mr. Clarkeson displayed at this point drawings of a highway section.

of the propositions and proposals that have been made by the people on the panel.

First, that Federal interstate highway money should not be used for highways or freeways through parks. I have in mind here primarily the Redwood Parks of California where we have had a great controversy, but this could apply to other parks as well.

The second proposal for a legislative change is based on the remarks of Mr. Halprin about the fact that rural highway standards are not necessarily suitable for urban areas. The present Interstate Highway Act has certain engineering standards which are appropriate in the rural areas and may not be appropriate in cities.

For example, I have in mind the 60-mile-an-hour or 65-mile-an-hour requirement. Highways are cutting a great swath through very densely populated cities, and we have had particular problems with this in San Francisco. Maybe 200 feet wide, they could do irreparable damage to the whole fabric of a city no matter how well the freeway itself is designed.

Would it be possible to relax the rigid standards in the Interstate Highway Act to provide for traffic moving more slowly through cities? You could move at speeds between 30 and 40 miles an hour. I understand that you can move as much traffic at this speed as you can at 60 or 65. Could you provide for slower traffic in cities with the possibility of using existing street rights-of-way and building the freeways beneath the streets for 30- or 35-mile-an-hour traffic?

These are two legislative suggestions. I would like comments on these, particularly from Mr. Whitton.

Mr. WHITTON. Well, he speaks of a law requiring a speed. I am not too well versed in the law, but I am not sure that the law requires a minimum speed of 65 miles an hour. I think it is probably a standard that has been adopted by the State highway departments. I am sure that in some urban areas, they are not designing for 65 miles an hour.

If the conditions were such that it seemed appropriate to build as you suggest, I am sure that it can be done.

Mr. HALPRIN. I know at one point I suggested to the State Highway Division in California that this law should be relaxed, or this requirement should be relaxed for the same reason Mr. Gilliam is suggesting, so we could reduce the design speeds in the city. I was told that that was impossible.

Mr. BABCOCK. I might come in here speaking as a highway administrator. I think if you find you put a speed of 35 miles per hour into what you referred to as a highway design, something you referred to as a freeway, you would find you would have an untenable situation with the public. You can relax speeds somewhat and we have some examples. But when you start talking of going down to 35 and 30 miles an hour, you come almost into a hopeless situation of compounding reverse curves and so on.

Frankly, the public demands more than that, particularly in the larger cities where they measure their ability to get in and out of town in terms of time.

A DELEGATE. I would like to know what measures have been taken to implement the recommendations to spare the natural vegetation along the highways or to reconstruct original landscape. In some countries they are already trying to follow it up and I am especially interested to know what has been done in the United States. Perhaps Mr. Sargent could answer the question because he was referring to exotic vegetation.

Mr. SARGENT. If I correctly understand the question, I personally feel that we are doing, particularly in our interstate system in the United States, a very good job in terms of landscaping, preserving the trees where we can feature them as part of the landscape as the highway goes through. I don't think we actually plant a tree every time we cut a tree down, and personally, I don't think that is necessary. Perhaps Mr. Whitton would want to comment on that.

Mr. WHITTON. Mr. Sargent has answered the question quite ably. I think that when we build a highway, regardless of what it is, interstate, primary, or secondary, I think we should save all the trees that we can save safely. The growth that is desirable to save should be saved. Of course, we have to keep in mind that trees up too close to the traveled way sometimes result in fatal accidents and we have to be careful about that. There is another method of developing suitable growth along the highway and that is by selective mowing under maintenance operations. Your local maintenance man has a knowledge of what will grow into a nice looking tree by the appearance of the sapling, and he can let it grow and thus obtain a very fine appearance and fine growing type of vegetation—vegetation that does not require pruning or cultivating

or watering or spraying. That is a very desirable feature to the highway department which is responsible for the maintenance.

A DELEGATE. I would like to ask Mr. Whitton a question. Those of us who have been involved in the highway conservation and design business in the last two years have been very powerfully struck by one point that Mr. Pushkarev, who is a distinguished author, raised in *Man-Made America*. That was in reviewing the transactions of the Highway Research Board of the last 20 or 22 years, he found that—he can correct me if I am wrong—something like 3 out of 900 articles dealt substantively with highway aesthetics. In doing our own research in California we found examples of outstanding design in other States. We even found some work that Mr. Clarkeson did in New Hampshire several years ago.

What can we foresee in the Bureau of Public Roads in terms of research and development—I mean in a R. & D. unit, rather than in pavement loading and so forth? Can we see an enhanced effort to carry forth the visual analysis that both Mr. Pushkarev and Mr. Halprin have done elsewhere?

Mr. WHITTON. You mean in regard to roadside plantings?

A DELEGATE. I would like to see a little more fundamental approach than that. We have a lot of cosmetic treatment in California and it hasn't made a difference.

Mr. WHITTON. I take it you mean in regard to location and design of the cross section.

Well, I think that since I have been in this business a good long time, I will say it again, you have seen a big improvement in road location and in road design during the past ten years, let's say.

I can recall when we established a road location by measuring half-way between the fences along the road and that was our foresight. But now, we establish road locations by aerial photography and a very careful laying out and examination of the total topography through the area, both from the air and from the ground. As Mr. John Ryan has said, they even make checklists of things they have in the area and things that they would like to save.

Then, again, on the roadside design, I think you have seen, and I suggest if you haven't that you drive from here to Fredericksburg, Va. or to Frederick, Md., and you will see, at least in my judgment, as fine a highway design as you will see in the country. It is independent design, both vertical and horizontal. I personally think

it is the fundamental basis of a beautiful highway, the way it is located and the way it is designed. I think we are developing that and I think we will develop it further in the future and I think more States will become involved in it.

I have to say, Mr. Ryan, in reply to one statement you made, if you are in a flat country like the boot heel of southeast Missouri, I would hate to try to live there if I were on a curvilinear alignment and develop artificial hills and hollows in that particular area where they make quite a bit of money growing cotton.

Mr. HALPRIN. I just want to say in this regard, that we keep on coming back to the road alignment out in the country. As Professor Buchanan pointed out, we pretty much know how to do it, it is now a matter of doing it. Where the R. & D. he is talking about is needed is in cities. We have to understand that we are involved in a new urban form that is changing the face of our cities. Architecture and planning and urban design and freeway movement all have to be integrated into some complex series of things that you might call traffic architecture. Nobody, to my knowledge, except a few forward thinking people in mixed fields has been thinking about this. I urge you, as I think Bill has been trying to do, to think about doing research which would look toward a new kind of traffic architecture which involved urban design in cities.

Mrs. JOHN WAINWRIGHT. This has been exceedingly stimulating for those of us in government to hear because the discussion has primarily been around design. Unfortunately, in Dade County, Florida, we now have to live with some design that hasn't proven to be very satisfactory. We therefore now have to apply the cosmetic approach to that portion of the interstate highway that has been constructed. This is not the fault of Mr. Whitton; it is unfortunately the fault of agencies such as those in the State of Florida. We are at the point where the Federal funds are available. On behalf of my city I would like to make some suggestions for the consideration of the panel and the Bureau of Public Roads.

First of all, we have currently been working on the beautification of that portion of the expressway already constructed. Fortunately, the city of Miami has a landscape architect that we could lend to the State of Florida to do design; otherwise, there is no professionally trained person to deal with this problem. We, therefore, urge that, for landscape design purposes, the work be done by professionally trained landscape architects, particularly those that are

familiar with the geographical problems of the area and native plant life.

Secondly, and we strongly recommend this second suggestion, plans for landscape beautification should not be part of the prime contract, but be an individual, separate contract. Because I am afraid otherwise, if you let it out as part of the general construction contract, the beautification is going to get the short end of the horn. So, I hope very much, Mr. Whitton, that the Board will take these suggestions under consideration. Possibly the panel would comment.

Mr. BABCOCK. He agrees with everything you say.

CHARLES CALLISON. There are two questions to the panel. The first one that Mr. Gilliam asked, was forgotten about.

The second was commented on. I should like to restate the first question or call it again to the attention of the panel and ask for comment, particularly, I think from Mr. Whitton and from the gentlemen on the panel who are State highway department administrators or officials.

The question is: Should it not be considered wise, perhaps, to have legislative recognition of the concept that certain areas should not be considered potential rights-of-way for freeways, or other major highways?

Mr. Gilliam spoke of the Redwood State Park in California. I know another such area which is an irreplaceable and extremely important national wildlife refuge in the State of Alabama. This is presently threatened by a plan to build an interstate highway through the middle of it.

Mr. BABCOCK. Thank you. I don't know whether the group here can comment on that.

Mr. HALPRIN. It may be easier for me. I wholeheartedly, sir, support your attitude and would be very happy to vote for it.

Mrs. HANS KLUSMANN. We have an urgent problem in San Francisco. That is the freeway they are trying to build there. One gentleman here, not from San Francisco, mentioned that the Embarcadero Freeway would be torn down. He said it should be torn down and if you would take a vote in San Francisco today, you would find a unanimous popular vote to tear the thing down. That was constructed about ten years ago. This new freeway is going to

extend that thing around the northern waterfront. They are going to slash an eight-lane freeway through a potentially beautiful part of San Francisco on our waterfront.

Everyone says that he is opposed to it. Tell us how—and this is directed to Mr. Whitton—how can we reach you and the people in Washington, because we understand that it is Federal money that is involved here? They are going to put this freeway through and all we have against you is a little board of supervisors. It is pretty hard sometimes to convince them what they are going to do is going to be very wrong.

A DELEGATE. Mr. Halprin, Mr. Whitton, and all the rest of you are wonderful highway landscape specialists. It is a marvelous opportunity to have your guidance, support, and help.

We are fortunate to have these great freeways. Don't forget to give us some fine landscaping whereby the eyes will not be so weary. When driving over a long, long distance, the great highway-freeway runs together. There must be some fine way of architecture and landscaping whereby that will not happen.

GLESTER HINDS. In connection with integrated, interstate highways, is there a possibility to have uniform, meaningful standardizing of traffic signals throughout the Nation?

Mr. BABCOCK. Yes, a standard control will be in effect in 1968.

JACK B. ROBERTSON. I want to pick up a thought brought up by Mr. Ryan, and my question is directed to Mr. Whitton.

I understand you are having some problems in getting States to accept section 319 funds, funds to protect natural beauty, rest areas, and so forth. What are you doing to induce the States to use these funds?

Mr. WHITTON. We have written a letter to them and we will be talking to them to induce them to use these funds. I think we haven't pressed too hard in the past because frankly we were interested in getting some roads built so that people could see what they were like. Now that we have some built, I think we are in a better position to insist on the States using some of the money—the 319 money—for acquisition of additional rights-of-way to protect scenic beauty.

ALLAN TEMKO. To say a word of criticism, the technology you are talking about is obsolete. You had no one here from General Electric,

General Motors, any of the big corporations. You are assuming that the internal combustion engine is here to stay, that the kind of vehicles we are using today are here permanently. What you should do is recommend strongly—and Mr. Whitton, I think your department should take the lead in this and I think this is what Mr. Lipman was talking about—you should develop a complete technology of movement in this country, as ambitiously conceived as the space program, and shed our obsolete technology as rapidly as possible. We shouldn't talk as if these rights-of-way are so important because they are predicated upon a single system of movement. You are not talking about total systems, you are only talking about landscape.

MR. BABCOCK. I will refuse to let my panel talk about this subject.

JOHN J. LOGUE. I would like to bring up very briefly the matter of suburban freeways. Big cities can defend open space such as Rock Creek Park and Central Park but it is extremely difficult for the suburban areas to do so with their weak governments and small areas of jurisdiction. New developments and new highways are going to create new traffic problems and it will take real effort to protect suburban open space. I am talking about the famous Blue Route controversy. I wonder whether Federal and State highway agencies couldn't introduce a new principle, namely abstention from taking creek valley lands in suburban areas, if at all possible. We proposed this to the President last Sunday.

MR. WHITTON. The last location that I saw, that looked the best to me for the Blue Route in Pennsylvania, took very little of the creek valley that you speak of. I forget the name of it. I wonder if you have seen the proposed location.

MR. LOGUE. I have seen it. I disagree with you.

MR. BABCOCK. I suggest you two get together.

A DELEGATE. I have a question for Mr. Sargent. In the event State and local governments or even another Federal bureau recommend one location for an interstate road and the Federal Bureau of Public Roads insists on another location which in the opinion of the State and communities involved is damaging to the master plan of the area, or to its natural and recreational resources—I believe there are about 16 such cases pending at the moment—could not some impartial review board be set up to whom such

cases might be referred for decision? Is it feasible to do such a thing?

Mr. SARGENT. I think it would be very difficult to get anything done. I think that the State is sensitive to the local scene. I think that the State works with the local communities. We certainly hold public hearings. We take into consideration the views of the local people and then we in turn work with the Federal Government. It seems to me if we have superimposed on this a further limitation, we would veto it. Creating a committee such as we are doing in our State where we have landscape architects, architects, and other experts serve and advise us, is very helpful. We are glad to have advice and criticism. But I think to have any further vetoes placed on our operation would make it almost impossible to operate at all.

Mrs. J. LEWIS SCOTT. The plant ecologist should design right-of-way vegetation and the policy for its management. Broadcast herbicide spraying removes valuable vegetation such as native wildflowers and shrubs. Selective use of herbicides and treating the vegetation according to ecological principles will insure the protection of natural beauty in keeping with highway safety.

BOYD MILLER. I have quick suggestions to make. The interstate system as it started was built in entirely too short sections to make any kind of natural beauty possible. As you drive through the newer parts you can see where the additions changed in design, which gives you a kind of patchwork.

Then, too, you go through sections that have been neglected. I wonder if the Federal Government is going to do anything about that. The agencies should get together throughout the whole system.

HENRY WARD. I think there are two points that are very important. No one on the panel answered the question about legislation forbidding a highway going through a park. I have spent most of my life in this area. It would be a serious mistake to prohibit the use of this land for highway purposes because it had been a park. I hope that this doesn't give some of you the idea that there is something absolutely sacred about a piece of land merely because once it was called a park. Land is for public use. We are building for it. I participated in building parks. I have built highways for public use. The greatest use for the benefit of the public is what that land ought to be used for.

Now, the other thing, the other matter—there is an impression here that the Federal Government is putting bulldozers out, that Mr. Whitton is doing this. It is not true. The Federal Government does not initiate a single highway project. Under the law it can't. The initiation is with the States. The recommendation is made by the States. If you don't like what your States are doing, argue with your State, not with Mr. Whitton who has plenty of arguments from us as administrators.

IRSTON R. BARNES. I would like to express my distrust of highway engineers.

And I should also like to dissent from the commissioner's last statement. There hasn't been a single park in Washington that hasn't been threatened with a highway. It is much easier to build a highway than it is to build a park. You don't build parks. Nature does that. The most important thing that this panel could recommend would be to have a set of values which would guide the location of highways and it should begin by recognizing that no highway improves the beauty of a natural landscape. It is an intrusion. We should recognize it as such.

Now, these are perhaps unpleasant truths, but I think these are the truths that represent the public point of view as opposed to the engineer's point of view. I should like to see the public's point of view at least acknowledged in the report of this panel.

Statements Submitted for the Record

IRSTON R. BARNES. The appropriate uses of scenic easements and zoning require more critical consideration than was accorded these items during the conference.

The scenic easement must not become a blackmail device in the hands of those who would appropriate for private profit the values created by public investment.

These comments are particularly pertinent in relation to new dimensions of billboard blight along parkways and other highways with respect to which public policy has determined that there shall be no billboards.

The contempt of the outdoor advertising industry for public policy and public values is exemplified by new huge billboards erected on steel scaffolding above the treetops. They have been placed beyond the highway rights-of-way. Examples of such flagrant disregard of

public interests can be seen in the signs of petroleum companies and automobile dealers along Interstate 95 in Virginia, along the New Jersey Turnpike, and in my own State of Connecticut along the Merritt and Cross parkways. A particularly objectionable instance is the Howard Johnson billboard in Milford on the east bank of the Housatonic River, which is visible more than a mile away in Stratford! No scenic easements should be paid for to eliminate these abuses.

The 1,000-foot standard (no signs within 1,000 feet of the highway) for billboards and signs along interstate highways is not an adequate or appropriate yardstick. A visibility test is needed. Any sign which is visible from an interstate highway or parkway is presumptively a trespass on the highway. It impairs public investment in the highway. It is a trespass on public property. It should be dealt with as a trespass, as an unlawful device to appropriate and to destroy community values created by public investment.

Scenic easements also represent public investments. They should be employed only to reimburse property owners for values inherent in their property, and not created by public investment which are foregone in order to create or to preserve community values. No property owner is entitled to compensation, or blackmail, to prevent a private appropriation or destruction of values created by public investment. No property owner has a right to use his land for billboards which trespass on the property and values created by a public investment in a highway.

Injunction suits and Federal zoning authority adequate to protect Federal investments—in parks, in highways, in national monuments, etc.—are the appropriate legal instruments to protect public investments from being appropriated and destroyed by private interests.

GEORGE J. EICHER. The American Fisheries Society would like to make a statement with respect to highway and freeway construction.

Too often freeways are constructed without thought of access to fishing and recreational areas. Not only is it often difficult to leave such freeways in the vicinity of recreational areas, but frequently such construction cuts off preexisting routes and renders such areas inaccessible.

We urge that future highway planning take into consideration access to fishing and other recreational areas.

IRVING HAND. In attending the sessions on highways, one became sensitive to the conflict of speed vs. beauty in the engineering of highways.

The effective utilization of time is a landmark in the advancement of technology in our Nation. The confrontation we face and must resolve is whether we face an irrevocable conflict in preserving the beauty of our Nation or sacrificing it to the demands of our economic development. This is not to say that manmade environment will not achieve a beauty of its own. Rather, can we retain the natural beauty of our physical environment while gaining the wonders of mankind.

We must identify the values in our environment—in our lives—which are significant and which we hope to achieve. This judgment is fundamental to what has been extended as an obvious truth—that the traveling public wishes to enjoy the visual scene it experiences when driving vs. the temptation to use high-speed highways for just that purpose—high speeds in getting from “here to there.”

A. G. ODELL, Jr. As I stated at the meeting of the National Advisory Committee on Highway Beautification of the Secretary of Commerce, the motivation of the Federal Government in supporting systems of transportation has always been to stimulate and facilitate interstate and intercity transportation. This has been true ever since Thomas Jefferson made a master plan of American roads and canals in 1804. It is true with our interstate highway program and the government's support of air travel.

Our current concern with the effects of roads in our landscape—whether in recognition of automobile junkyards, billboards, overhead utility wires, roadside rest places, or recreational open spaces—is a recognition of the fact that we must now plan ahead for all the areas that transportation systems affect.

Our improved road systems are one of the main reasons our cities enlarge, and are a main reason for the growth of suburbs and suburban shopping centers. To merely adorn these phenomena with trees or shrubs is to miss the real problem entirely.

The real problem is to design all the areas affected by highways. Beautification is, to be sure, an important aspect of design—but let us not put the cart before the horse. It may be that our concern over the appearance of auto graveyards is the expression of a national embarrassment with our extravagant waste.

Simply stated, we should build into our highway planning a process where design is required, indeed where it leads the whole effort. It is not enough to invite design consultants or to have partial funds for design or planning. That has not worked up to this point.

We have already developed the technical knowledge to design the rural highway. We have been doing it for a half century or more.

Since our urban areas will double in size within the next 35 years, the real frontier of environmental design today is the city and the key to its design is to understand how highways affect the city. Here we Americans ought to be making a large investment in exploratory design—as we have done with radios, TV sets, jet airplanes, and rockets to the moon.

ROBERT L. PERKINS, Jr. Highways directly destroy natural beauty in two ways: first by their location, second by the way they are constructed. The first is fairly obvious. As to the second, design and construction methods may bring about results such as large-scale pollution by silt or the ravaging of nearby lands for the purpose of obtaining or disposing of fill.

There is an urgent need to provide some real balance in the process of route selection and design between the economic and engineering factors, and the other resource values, both tangible and intangible. A procedure should be established to give appropriate and unbiased consideration to all resource values involved and to use this as a basis for decisions. At present, little or no consideration is given to the destruction of natural, scenic, and historic areas and, in fact, such lands are likely to act as a magnet in drawing highways.

The more successful the protectors of such areas have been the more likely it is that a highway planner will select those areas as the cheapest route. The facts that a highway may destroy such a tract's usefulness, for the public purpose for which it was set aside, and that the nearest thing to a replacement for that public purpose costs an enormous amount may not be a deterrent. Highway planners in most cases are not required to be concerned with replacement value but only with the highway's effect on the market value of the land's so-called highest and best use, as determined by condemnation commissioners—which use is usually for housing or for industry, and may not be greatly reduced by the proposed highway even if the natural values are largely destroyed.

THEODORE R. ROGOWSKI. "What makes you believe a river is more important than a concrete highway?"

These are the words which greeted our delegation travelling from New York City to the Department of Commerce in Washington when we met in private session to urge that a Federally financed highway be relocated, asking that the highway be kept at least 400 yards from the very edge of some 6 miles of a free-flowing river. We recommended that a greenbelt, preferably with the existing trees intact, be preserved to maintain the natural visual beauty of the river, to protect the river from the oil, refuse, and sun-baked pavement of the highway.

When we asked that an alternative route some miles distant be considered, the curt answer was "We need that area for the next system of super highways."

We respectfully submit to this conference that there was no real issue of money or cost in making these decisions; the problem we confronted was that of personality. The planners had made a selection of route which was now being challenged. It was a very personal thing. And there was a professional blindness to correction.

There seems a consensus of opinion voiced here that the Federal highway system has succeeded in the countryside but has failed in the urban areas. We submit it is a matter of degree, and we feel the failure has been serious in the rural areas as well.

Our recommendation is, therefore, that scenic corridors between highway and waterways, separating concrete from waterways by a minimum distance of 1,000 feet, be a mandatory requirement in the highway design standards recommended by this White House conference. This protective zone would help keep the waters of the river cool by preserving the natural river banks, pure by removing a source of oil and litter pollution, and naturally beautiful by removing the noise of the highway and the eyesore of speeding traffic.

This 1,000-foot scenic corridor would further preserve bird and animal sanctuary and would allow nature trails, picnic and rest areas contiguous to the river—all of which are permanently, irrevocably destroyed when the highway is built at the very edge of the river, sometimes in fact causing the river to be rechanneled.

A definition of ugliness: a highway encroaching upon a river bank. A definition of beauty: the glimpse of a river valley from a distance. Let us not confuse the two so as to run our highways plumb down the river basin, destroying the thing of beauty and the river to recreational use.

We would like to affirm that the open space programs will work only if the engineers of the Bureau of Public Roads, Department of Commerce, will approach these problems with open minds.

Dr. J. HAROLD SEVERAID. The triple-decker, massive, concrete freeway over an equally massive and sterile concrete-lined riverbed in Los Angeles County represents a choice example of what we should avoid if we can. I am less concerned about the inevitable need for some such monstrosities than I am about the fact that engineers are proud of them. Only when the engineer views such masses of concrete with the same abhorrence as does the conservationist can we rest secure in the knowledge that our cities will be treated to a minimum of them.

MAX M. THARP. A carefully planned recreation program well integrated with the interstate and other Federal-aid highway systems is needed. Both mobility and recreation can be provided when both activities are balanced. Combining recreation and transportation is a practical application of the principles of multiple purpose and balanced use.

Recreation should be made an integral part of the major parkway, interstate, State, and county highway networks. Three different types of recreation facilities, depending on landscape, terrain, and other natural features as well as the limitations required for traffic management, should be developed at stated intervals to meet present and expected future recreation demands. These are:

1. Highway rest parks could be back from the highway a relatively short distance, not more than 3 miles, depending on terrain and availability of appropriate sites. Generally the areas would be screened from the main highway by plantings or natural geologic features. They would differ from the usual waysides and lookouts in location, facilities, and size. Access to highway rest parks could be provided by feeder roads at appropriate interchanges.

Concession facilities could be provided if the number of visitors created sufficient demand for them, but there would be no overnight facilities.

2. Highway recreation areas should be located in rural areas near major highway networks. The nature of the resources and their natural setting should be taken into consideration in planning such areas. The type and intensity of use for which they could be developed would depend on these factors. Year-round usefulness should be considered in selecting and developing these areas. For

example, in northern areas, winter sports might be developed as a major feature, with hiking trails and other extensive-use recreation facilities as a supplement for the summer season to provide year-round use. On the other hand, where climate permits, opportunities for swimming and water sports might be provided throughout the year.

3. Rural-urban recreation centers would be characterized by intensive urban daytime recreation use. They should be located in rural areas adjacent to cities where highways provide easy, safe access to the metropolitan population. They would provide mass recreation facilities primarily for city dwellers. Campsites, however, would be featured in some areas to provide for overnight and weekend camping. Parts of the sites would be for particular use by organized groups. The new interstate highways, city bypasses, and circumferential highways could provide access to these recreation areas.

These rural-urban recreation centers may be developed by the cities or by the States. However, they could be developed with Federal assistance and leased to the communities for operation. In any case, private enterprise could supply the services and facilities for which users would be expected to pay. If public facilities were provided, they could be operated by concessionaires as is done in some national parks and forests.

Through development of integrated highway recreation facilities, the increased mobility of our people can be directly linked with outdoor recreation. By proper planning and management of recreation areas for specific uses, the increasing recreation demands can be met and purpose given to our restless mobility.

CHAPTER 9

SCENIC ROADS AND PARKWAYS

3:30 p.m., Monday, May 24

The Chairman, Senator FARR. The average American spends two months of his life behind the steering wheel of his automobile, not counting his vacation, which may also be behind the wheel. On the Federal level, no other domestic program spends more of our taxpayers' money than does our highways program, paid for by the motorist out of highway users' funds.

Consequently, the American motorist is entitled to and he deserves to drive on a safe, well-designed and aesthetic highway. From that highway, he is entitled to see "a more beautiful America."

I hope that this Panel on Scenic Roads and Parkways will focus its attention on some of the following questions:

How do we satisfy the recreation desires of the traveler by car? What do we mean by scenic highways, parkways, corridor protection, and scenic easements?

What are the legal and financial devices to protect the scenic corridor? How do we make sure that engineering principles in highway design consider simultaneously safety, good engineering standards, landscape design, and aesthetics?

What can we do to cut down the estimated \$100 million it now costs the American taxpayers to clean up the litter on our roadsides?

What is now being done on national, State, and local levels to develop scenic roads and parkways?

After the Federal interstate system is completed in 1972, should

Members of the Panel on Scenic Roads and Parkways were Senator Fred S. Farr (Chairman), George B. Hartzog, Jr., David R. Levin, Kevin Lynch, Edward G. Michaelian, Senator Gaylord Nelson, and Mrs. Ralph A. Reynolds. Staff Associate was Dudley C. Bayliss.

a major portion of highway users' funds be directed toward the needs of the recreation motorist?

What about the freeway in the city? Can it be made useful, safe, and beautiful?

How can we give meaningful recognition to those States, those communities, those engineers, architects, and landscape architects who see to it that the roads, parkways, and highways they design become an integral part of "a more beautiful America"?

Mr. HARTZOG. The National Park Service of the Department of the Interior believes that the national parkway concepts and principles developed over the past 30 years at the Blue Ridge, Natchez Trace, Foothills, George Washington Memorial, and Colonial Parkways offer great promise to our national road program.

In all of these there was a valuable, specialized Bureau of Public Roads' contribution of engineering skill and teamwork with the landscape architects and architects of the National Park Service. This teamwork continues on current programs of park and parkway roads resulting in handsome routes for leisurely travel. They are located to best fit the natural topography, taking advantage of scenic, historic, and recreation objectives along the way and encouraging a ride-a-while, stop-a-while experience.

The same principles could provide good scenic qualities and recreational opportunities—free from roadside clutter—if extended and applied to new national or State parkways or to preselected sections of existing State roads or highways.

We applaud the State of California's pioneer work in developing its recently authorized Scenic Highway System. Our panel chairman, Senator Fred Farr, was most instrumental in this program.

As our part in achieving these purposes, we plan to:

1. Continue National Park Service park road and parkway programs annually under Federal-aid Highway Act authorizations.
2. Expand the park road program to provide access to new national park system areas as they are authorized by the Congress. The President's Message on Natural Beauty proposed several for establishment.
3. Expand national parkway studies to provide greater national representation. For example, joint studies by the National Park Service and the Bureau of Public Roads have recently been completed on two proposed national parkways. They are the Allegheny Parkway, 632 miles long, connecting Harpers Ferry and Cumberland

Gap National Historical Parks through West Virginia, Virginia, and Kentucky; and the extension of the Blue Ridge Parkway, 190 miles from Beech Gap, N.C., to Kennesaw Mountain National Battlefield Park north of Atlanta, Ga. Legislation authorizing establishment of both Parkways is now before the Congress.

We expect to complete joint studies this summer on two other national parkway proposals. One is the Washington Country Parkway in Virginia, a 550-mile loop from Mount Vernon through tidewater Virginia to Yorktown, Williamsburg, and Jamestown, thence to the Skyline Drive and on to Harpers Ferry, returning to Washington along the Potomac River. Part of this loop is already completed in the form of existing national parkways and scenic highways with great historic interest. The other is the Cumberland Parkway, which would connect the Great Smoky Mountains, Cumberland Gap, Mammoth Cave, and the Natchez Trace Parkway, 350 miles through Tennessee and Kentucky.

Other studies will be programed as the over-all scenic roads and parkways program progresses.

4. Continue to collaborate with the Bureau of Public Roads on advisory services to the 10 Mississippi River Valley States on the Great River Road. This road embodies national parkway principles and objectives such as wide rights-of-way, scenic easements, access control, and provision of recreational features en route.

I would like to compliment the States of Minnesota and Wisconsin on their legislation and subsequent action in acquiring additional lands, scenic easements, and access control on their portions of the Great River Road. Minnesota is the first State to make use of the section 319 authorization for this purpose. Wisconsin, thanks to the fine efforts of my fellow panelist, Senator Gaylord Nelson, has extended scenic easement purchases statewide, thereby guaranteeing the preservation of scenic beauty along many miles of its highways. At the same time, this protection brings the promise of future visitors and their vacation dollars to repay the cost many times over.

5. Work closely with Dr. David R. Levin and the Recreation Advisory Council agencies in developing a sound national program for scenic roads and parkways.

One of the most important parts of such a program is to nail down, as soon as possible, the scenic corridor needed for the im-

plementation of this program. To do this, we will require many tools—some new, some familiar ones, such as the mandatory use of section 319 authorization in the Federal-aid Highway Act; the adoption of legislation at the State and Federal level authorizing fee purchases with “sell-back” authority for compatible development and use; scenic easements and access regulation; zoning ordinances, and special Federal incentive programs to recognize outstanding work.

Mr. MICHAELIAN. The scenic parkway system was born in my own county of Westchester. Back at the turn of the century, Westchester County and New York City teamed up to end the pollution of a small stream approximately 25 miles in length that rises above the city of White Plains and flows southward into Bronx Park in New York City. The problem of the pollution of that stream created a request for a reservation of right-of-way on both banks of the stream known as the Bronx River Parkway Reservation. This later became the site of the first parkway in our country. Construction began in 1916 and was halted because of the war; it was resumed after the war and was finally, that small stretch of parkway, opened completely in 1924. This parkway was designed in an era when speeds in the towns and villages and cities were approximately 15 miles an hour. The parkway in particular in those days was a speedway, because the speed limit was 35 miles an hour; and only recently have we raised the speed limit to 40 miles an hour. We are very proud of that stretch of parkway and it will be the last thing my county will ever give up because we think it is a symbol. From that has grown the total concept of a parkway system in the State of New York; it has been followed by the New York State Parkways, Palisades Interstate System, and so on. Other parkways were built in the State of Connecticut. The Merritt and Hutchinson River Parkways form a parkway system linking New York to Connecticut.

What is the concept of a parkway or scenic highway? First of all, from the initial planning and construction stage, what we strive to do is to create a greenbelt, provide a scenic vista, preserve for public view and enjoyment our streams, rivers, and waterways, strive to interconnect recreation facilities, so that they may be reached by a network of parkways or scenic highways to dramatize and make the natural scenery, with which we are endowed by nature, available for viewing.

There is one thing that we must watch very carefully, once having constructed parkways, and I can tell you this from our own experience. Care must be taken to prevent erosion, and erosion can be prevented by the appropriation of sufficient funds to protect not only the highway itself, but its slopes, shoulders and the vistas. This is particularly applicable where streams, rivers and the sea are concerned. Construction, where necessary, of channels, berms, seawalls, jetties, or other proper precautionary measures, must be undertaken.

The greenbelt concept of a scenic highway or parkway requires an ever-vigilant attitude to prevent attrition by demand of local communities for their use for purposes such as parking facilities, community building construction, playgrounds designed for intensive use, power transmission lines, pumping stations, public utility buildings, school purposes, and the like.

All too often, because open space area is the easiest way out, the nibbling begins, mostly under local pressure.

Another facet contributing to attrition is the desire to utilize the parkway for mixed traffic to avoid building additional highways for that purpose. Here the pressure to convert comes from those opposed to the construction of new highway facilities. The revitalization of the railroads with the use of new equipment and techniques leading to a more intensive use of railroad roadbeds, and with the railroads in a more competitive position with other modes of transportation might check somewhat the demand for continuing expansion and construction of highways for mixed traffic.

Dr. LEVIN. The scenic roads and parkways study was initiated last summer, in the Department of Commerce, at the request of the Recreation Advisory Council. A study manual containing definitions and criteria was formulated. On the basis of the specifications of the manual, the States made nominations of scenic roads and parkways and provided us with all kinds of data on mileage, costs, resource groups, complementary facilities, and related information. These data are now being analyzed, with the help of computers. A final report on the study will be tendered this summer. It will contain a recommended national program of scenic roads and parkways, and suggest alternative means of financing the program. It will be sent to the White House and probably will be transmitted to the Congress for its consideration.

Several characteristics will distinguish the proposed program from any other kind of highway program ever authorized. First, it will try to meld recreation and transportation into a new mix or synthesis. It will heavily emphasize the corridor concept; the corridor is the areaway beyond the highway right-of-way, which imputes to the traveled way its scenic qualities and makes possible a recreation opportunity for the motorist, whether he is in motion or at rest. It will provide a complex of complementary facilities, which are roadside rests, camera stops, scenic overlooks, campsites, boat-launching sites, hiking and bicycle trails, and the like. It will cater heavily to population proximity; that is, the facilities will be located reasonably close, in terms of driving time, to the major centers of population of the Nation.

Probably three or four varying-sized programs will be proposed: A minimum program, a maximum program, and several intermediate ones. For each of these, its estimated costs, physical elements, service characteristics, and mileage will be given. It then will be up to the President and the Congress to determine which program should be authorized.

Senator NELSON. It is difficult to discuss resources and the proper protection, preservation and utilization of our resources in bits and pieces, since all of the problems that we are discussing at this conference are interrelated.

I understand that it is desired that I say something about scenic easements and how we have used them in the State of Wisconsin; that I make a brief comment about section 319 of the highway code, and say something on the question of zoning as well as about highways. I will also volunteer a comment here (because I don't see it elsewhere on the panel) in respect to hiking and camping trails.

First, on the question of easements: As all of us know who have dealt with the acquisition of lands, one of the problems we run into regularly is the problem of making an acquisition over the resistance of property owners or groups of property owners. We happen to have a good statute in the State of Wisconsin which gives the same condemnation powers for acquisition of recreation land as the highway department has for highways, except the highway department can condemn and take first and settle the price later, whereas the question of price has to be settled before the taking under Conservation Department law. This is a good law. It is as important to acquire property for recreation

as it is to acquire property for highways. We have used it to acquire some 170 miles of scenic easements along the highways in our State, 111 miles of it along the Great River Road. We have about 75 percent of the necessary easements on both sides of that highway, which is a magnificently beautified highway. About 75 percent of what we intend to acquire has been acquired. The cost was about \$1,250 per mile.

One of the advantages of easements is that many property owners who do not wish to sell their land in fee are recognizing the importance of preserving the beauty of the area. They are willing to sell the easement in perpetuity, protecting the scenic beauty of the area so whoever inherits it or subsequently purchases the property may not, without consent of the State, cut down any trees or build any billboards or structures of any kind.

These easements will permanently protect the beauty of this highway along the Mississippi River. In this case, the easement device was used mainly for the preservation of scenic beauty. It is a good device not only for this purpose, but also for acquiring wetlands, springs, sources of water, and so forth. Again, these easements are purchased from farmers and other owners who don't wish to give title to the property but recognize the importance of protecting it. We have found it a useful device and we shall continue to use it extensively and increasingly in our State.

Section 319 of the Highway Act for some 20 years or thereabouts has provided that States may use up to 3 percent of their Federal highway funds for the acquiring of easements for scenic beauty along the highways. For 20 years this provision of the statute hasn't been used.

I introduced a bill last session and in this session to set up matching funds on a 50-50 basis. I wrote all 50 governors and had a response, I think, from about 45 of them. They were all for the idea, but everyone asked where they would get the matching money. I am satisfied that the pressures for construction of the highways are such that the present Federal statute won't be used.

I think it is time the people interested in conservation in this country start talking about general fund moneys for the purpose of conservation. We have attempted for far too long to survive in the conservation field upon fees of various kinds: fishing licenses, hunting fees, the land and water conservation bill, etc. The fact of the matter is that the conservation of our resources is just as important

as education. We have long recognized the necessity for supporting the educational system out of general funds of various kinds and general taxes. We should use general funds much more extensively in the conservation field. I will say something more about that in a moment.

We made a tragic mistake here in the Congress when the law was passed authorizing construction of the Interstate Commerce and Defense Highway System. The Congress should have required that all the interchanges across this Nation on this magnificent highway system be zoned. We are going to have several thousand interchanges along this highway and half, if not more, are going to be ugly slums with taverns, honky tonks, and unsightly developments all across the country. Ours is a limited-access system which, of course, permits no business of any kind on the highways. So each interchange is an economic asset that attracts development.

We did not require the zoning of those interchanges. This was a tragic mistake which we will regret for all time to come. While I think easements are an important device to use in preserving scenic beauty, I think the zoning power of the State is potentially more important. We have 10,000 miles of State highways in our State. We made an attempt on two occasions in our State to control the construction of billboards in areas of scenic beauty along the State trunk highways. The proposal passed one house of our legislature but was defeated in the other by the billboard lobby. I would think it would be well worthwhile to persuade the outdoor advertisers to join in support of a sound measure now that the President has so dramatically called to our attention the damage we are doing to the beauty of our country.

I don't see exactly where hiking trails might fit into this panel discussion, but I think they do fit some place. I think we can provide more opportunity for recreation with less money by the creation of hiking and camping trails than by any other investment we can make. We have a vast amount of public lands in some parts of our country; we have 2 million acres in our State. I made a proposal last week to a conference in Wisconsin for 3,000 miles of hiking trails in the State which would put a chain of hiking trails along the shores of our lakes and along rivers and through the public lands and the national forests. This 3,000-mile trail system would put hiking and camping

trails within 30 minutes' driving time of everybody in the State of Wisconsin and, in many parts, less than that.

Along all our scenic parkways and scenic drives, it is a very simple matter to carefully plot out a hiking and camping trail system and make the necessary acquisition by easement. We can develop a plan and get the participation of the Boy Scouts, Girl Scouts, church groups, and campers as they have done so magnificently for so many years with the Appalachian Trail, which is maintained on a voluntary basis by the members of the Appalachian Trail Conference.

I think this is a very fruitful direction in which to turn in connection with the development of our scenic roads and waterways.

One title is missing, it seems to me, in this conference, and that is what I would call the politics of conservation. We have not failed—the conservationists have not failed—for having ideas. Great speeches were made by John Muir a hundred years ago on what was coming and great speeches were made by Teddy Roosevelt and by many each generation since. Fortunately, the late President Kennedy and now President Johnson have been giving vigorous executive political leadership to the question of conservation. We see the whole country becoming aroused by the kind of leadership we are getting now. We need that leadership at the national level. In fact, it is crucial, but we need it also at the State level and at the local level. We don't fail for ideas, we fail for translating these ideas into political action. Over all the years I have dealt with the very fine conservation organizations who are concerned, interested, and who support good conservation practices, our failure has been a political failure.

It is a very strange thing to me because the fact of the matter is that there is not an issue in America in my judgment more important than the conservation of our resources: water, soil, forest, wilderness, and air. There is no political issue with broader public appeal to it because it is the only issue I know of that cuts across every conceivable political line and touches every single individual—from the little lady in New York with a pot of flowers outside her window or the bird watcher, or hunter, fisherman, camper, sailor, hiker, or what have you. Some aspect of nature directly touches and interests every single person in America in one way or another. There isn't any other issue as broad as this one. This is why it seems so strange to me that we haven't had the kind of political leadership

we should have had in the past at the Presidential level (and which we are getting now) and why we haven't had it at every political level. I think it proves, more than anything else, the lack of perception by our politicians rather than lack of interest by the people.

Without going into details, let me tell you the experience that we had of putting a penny tax on cigarettes in my State. Anybody who has been in politics realizes that it is always toughest to pass an excise tax because it is so visible. People oppose taxes (although they love the services) so that every time you put a tax on something you generate great opposition. When we made our proposal, we detailed an expenditure of \$50 million for parks and wetlands acquisition and wildlife habitat and scenic easements and so forth and drafted maps and showed the people of the State everything we were going to purchase during the next ten years. When we told them, we received editorial support from every single newspaper in Wisconsin without exception. Of the hundreds of letters I received, I received only one in opposition. The expression of opposition was not to the program, but because the smokers were going to be required to pay for it.

This demonstrates the kind of support the public is willing to give to a program if they see what the program is all about. Our failure has been not to delineate a large program that people can see and feel. The President is providing remarkable leadership on this issue. I am hopeful he will at the proper time make a major comprehensive proposal that will meet the whole conservation issue head-on. I think it is crucial he paint with a big brush and make it clear to the country that we have maybe a decade left, maybe a little more, to make a major investment in preserving those things which provide quality of living in this country. We are talking about substantial general fund moneys. We must, for example, spend \$50 billion to \$75 billion just to clean up the water of this country. Our rivers are being destroyed at an accelerated pace. The tragic circumstance is that there is not a single major river in America left, as far as I know, except the Saint Croix River, that is close to a metropolitan area and still unpolluted. The Great Lakes are being destroyed very rapidly. On Lake Erie last year 2,400 square miles were without oxygen because of pollution. We are polluting all the underground water supply in this country. The Mississippi is polluted. All the major watersheds are polluted. To clean up our waters I think we must give substantial aid to industry and our municipalities. Whatever the cost, the return both in the oppor-

tunity to enjoy this asset plus the economic return from restoring that asset will repay many times over the cost.

We are not only talking about pollution, but of a total conservation program. Our time is short. The job is big—but the course is right and the people are ready to support it.

Mrs. REYNOLDS. I would like to say a little bit about the special problems in regard to scenic highways as they face States such as California. Such States have very large areas, so that the highway systems are of a tremendous mileage, they have an unusually high rate of population increase, and are often, at least in some parts, characterized by a very stubborn insistence on home rule. These three characteristics bring about certain problems to which I would like to suggest a few approaches.

In the first place, the population expansion which is very great in some of our western States is, of course, resulting in the gobbling up, at a very rapid rate, of open spaces including the corridors of highways which run through scenic areas.

In the second place, the increase in population brings about a constant pressure on highway officials to give more lanes for more traffic in a hurry. Where a two-lane meandering road is going to have to be improved to carry more traffic, there is a tendency to improve it by making it into at least the first half of a freeway. In other words, reengineering it, reconstructing it according to freeway specifications which means 65 miles or 75 miles an hour traffic flow. That may or may not be all right. If it is a scenic highway, thought should be given to whether the special qualities that are inherent in the meandering road will be completely destroyed by converting it into half a freeway, to be made later into a whole freeway.

In the third place, there is reluctance on the part of highway officials, for the reasons which Senator Nelson has mentioned, to spend any of the Federal funds which are available for aesthetic development. In many cases there is also a lack of understanding and training in aesthetic principles on the part of highway officials.

Now, just to suggest a few of the approaches to these problems. First of all, Senator Nelson has mentioned ways of bringing about the use of the highway funds which are available. I think that has a great deal of importance.

We might, to very good advantage, make funds unavailable to any State which has on its books laws which militate against a reasonable approach to the aesthetic development of highways, or to the rea-

sonable protection of park lands. In California, we have some laws in our statute books now which we are trying to get rid of. The provision I have suggested might very well provide a leverage to help us eliminate such laws.

Another approach could be pressure applied to universities to have the schools of engineering include in their requirements basic training in aesthetic highway design and basic principles of conservation.

One of the very best approaches for States which are not able to convert a great number of their beautiful highways into parkways is to develop a State scenic highways system such as has been established in California, largely to the credit of Senator Farr who introduced the authorizing legislation.

A map that shows this system is displayed in this room, which I hope you will look at later. There is also, among the publications available, material on the scenic highway system. This system divides the responsibility between the division of highways, the agency responsible for bringing the roadways and the complementary developments up to high standards, and other agencies of the government which are responsible for protecting the scenic corridors. Unless both those conditions are met, the highways will not be admitted officially into the scenic highway system.

This system is just beginning, but we think it has great promise.

Mr. LYNCH. I would like to make a proposal that the concept of the scenic road and scenic corridor be applied to the city itself, directly to the urban area. This may seem a strange idea to put forth. Everyone knows that cities are very ugly places and city highways are some of the more ugly parts of it. Who would want to drive for pleasure on a city highway?

It may be that there are more people driving for pleasure on our city highways than we think and, whether that is true or not, certainly it is on these channels that the great majority of our citizens are moving back and forth every day in the course of their other business. Surely what they see is of some consequence to us.

It is not possible to separate the visual experience into a little box, to say one looks only when one is on vacation. We are striving to improve the whole visual experience, the whole world that surrounds us.

I would go further, and say that the city is potentially just as fascinating as a forest or a piece of rural landscape—perhaps more so because it is much richer in human connotations. We have the

means within our hands to make our city landscapes just as enjoyable, just as exhilarating as any other part of our national landscape.

The concept of the scenic road would have to be applied differently to the city. You would not be able to control a wide visual corridor in any rigid manner. Nor would you be able to develop roads which are primarily for leisurely kind of driving. (Although even here, I am no so sure. There is just the possibility that we may think again of pleasure roads built just for that purpose. This, of course, was the original parkway idea, which was later swamped by commuter traffic.) But even in a mixed multipurpose road, there are ways in which you can handle the alignment, the general location, the opening and screening of views, the form of nearby structures. All of these things can be used to exhibit the city to the best advantage.

Whether they are ugly or handsome, cities are the symbols of our society. The highway can uncover its rich diversity, its problems as well as its potentials.

Not only can you use a highway to exhibit the city but you can so arrange space and light, form and color to give a very rich succession of visual events.

All of these things, incidentally, apply not only to the highway, but to the entire movement system in the city. They can be considered in a 400-miles-an-hour transit system or on a walkway.

One must be concerned not only with the view from the road but with the view of it. I think I can pass over that because Mr. Halprin did such a good job in describing how one might fit a city highway to the whole fabric of a city. The idea of a corridor is of importance. By dealing with the entire linear strip of environment and building it as a whole, one can completely change the visual environment and at the same time recapture values and begin to confront some of the social and economic problems of relocation.

All of these things are technically possible now. We also need a substantial effort of research involving not only the characteristics of existing highway systems, but possible new technology and the whole range of movement in a city. It should include possible design ideas and studies of how people behave on a road. Some of the research is already begun.

Now would be the time to build a prototype city road of this kind, to allot the design time and talent that would be necessary to show what could be done with this kind of system.

Questions and Discussion

Mr. HARTZOG. We were discussing some of these things last night and in the process of the discussion, a question came up with respect to the authority of your California Highway Department for freeways and parkways. I understand there has been some concern on that in California.

Mrs. REYNOLDS. Quite a good deal. You see, in California the Division of Highways has the power to condemn land for highways, even if it is in park land, even though the State Park Commission and all the park officials do not give their approval. Well, they say, look, it works beautifully because we have discussed it and we have come to a solution. Of course, eventually, a solution is arrived at but we don't feel that it is always a very handy solution.

As an example, a good many years ago, such a controversy involved putting a freeway right through one of the most magnificent areas of redwood groves. They couldn't come to a solution and finally the Division of Beaches and Parks begged for a stay of some time until they could do something on their own. They found some additional funds and made their own highway survey and, after they had done that, they finally got the route adopted that bypassed the groves. But you see we don't consider that a handy way of going about solving that problem. We feel, many of us, that since a park commission is entrusted with the protection of the park lands under its jurisdiction, it should be able to protect them to the fullest, if necessary.

Dr. LEVIN. Mr. Chairman, what are the possibilities for incentive and recognition awards in connection with scenic roads and highways?

Senator FARR. As you know, our panel was discussing this matter last night. It was the feeling of the panel that there should be recognition for the engineers, architects, landscape architects, the States and communities that do an outstanding job in preserving the amenities by building beautiful safe highways. Perhaps this is of such importance to the American people that there should be an annual award at the very highest level. The President of the United States could designate the "White House Highway" or the "President's Highway of the Year."

Another suggestion grew out of the recent scenic highway and

landmarks tour made by the First Lady. She focused a tremendous amount of attention on the national parkways, and the interstate system and the very fine roadside rest job that is being done in Virginia.

Perhaps, Mrs. Johnson, you might wish to invite the wives of the governors of all the States to conduct similar tours. This could be a very, very effective thing throughout the country.

Mrs. REYNOLDS. Dr. Levin, in your opinion, to what extent are most of our highway engineers well equipped to deal with the aesthetics of highway design and conservation principles?

Dr. LEVIN. I think, through the years, the highway engineer has shown a definite capacity for growth, I might say, Mrs. Reynolds. I mean that very seriously. If you knew as I do some of the boys who have been associated with the Federal Aid Highway program, I think you will agree.

Thirty years ago we couldn't spend any money in the urban areas. There was a prohibition in the law which said you could not spend any money on the highway that had houses closer than 200 feet. Accordingly, the highway departments were building highways in rural areas. All of a sudden, Congress, in recognition of the trend toward urbanization, changed the signals and changed the law. All of a sudden the rural State highway departments found themselves literally overnight in the urban highway business. Actually, at that time, they knew very little about the urban area. They knew a great deal about engineering on the highway but problems in the cities are quite different. So through the years, and I say this very sincerely, the highway engineer has rolled with the punches. I am confident that if they are given the opportunity to do so, and the money and the authorization, they will respond to the call.

Mrs. REYNOLDS. May I add just one word to that? In all fairness, I want to underline what you have said. In ever so many cases we find that where the highway engineers are being called the bad boys and all the anathemas are being directed at them, actually they are only following out the directive that the legislature has laid out for them.

NATHANIEL OWINGS. I would like to address myself to the general idea behind this whole problem underscored by scenic roads.

First, I have not heard anything about anybody giving anybody anything. I think the good old-fashioned idea of somebody giving

some of these things we need for our great country should be more in the forefront. We all know that we have great tax problems. A great percentage of the land in this country is in its original ownership. A great percentage is held by older people. A great percentage of it is held by corporations who bought it for one purpose and find that today, perhaps, those purposes are obsolete. I would like to suggest that, since President Johnson has asked us to have some imaginative thinking, we tackle the problem of getting open spaces, particularly along scenic roads, by appealing to men's pocketbooks. I am thinking in terms of the Federal tax appropriations for large concerns. A large concern on the west coast might pay a Federal tax of anything from \$20 to \$50 million a year. Supposing that a large corporation had large land holdings on which great stands of beautiful trees existed. Why couldn't legislation be considered at the Federal level where the corporation had some way to pay his taxes other than in dollars? Why couldn't some method be considered by which, when the time comes at the end of the year to make income tax payment, this concern couldn't offer 10,000 acres of redwoods instead of \$10 million or \$100 million or whatever it is that they have to pay to the government? It seems to me, we have got to tackle these problems at their source, one of which is the obsolescence of a good bit of this land. A good many large corporations hold great tracts of land and are trying to consider ways of using it other than as originally planned.

The second point I want to make is, a scenic road is not a road, it is a corridor. That corridor is like, to me, a cruise ship. Once that ship is filled, once the road is filled with the number of cars that will travel comfortably on it, it should be cut off. It should not be considered as a transportation program, but as a visual recreation program. We have got to consider that quite separately from the freeway program which is quite a different thing and naturally has to be treated quite differently.

To summarize this, I would like to suggest that one of the big subjects that we study at the Federal level should be ways and means of changing our tax base so that if a man is faced with the selling of his property, he has a choice. Instead of selling it to a redeveloper for a given price, he should have some way of giving it to the Federal government or to the State in lieu of taxes.

JOHN AUERBACH. A question to Mr. Hartzog and if time allows, I have a question for Dr. Levin. There are 57 million people riding

bicycles in America today. In his natural beauty message last February, the President saluted this group of outdoor users and said our doctors recommend it. But he also said they are amongst our forgotten outdoorsmen and urged that their needs be considered. He specifically said of this particular group, that they not be tyrannized off the road by the motorist. The question that I would like to put to Mr. Hartzog and to Dr. Levin is this:

Are provisions being made for this large group of outdoor users to enjoy our scenic roads and our National Park System and also all other scenic points?

Mr. HARTZOG. Indeed, we are providing for them. At Cape Cod, for example, a full system of bicycle trails has now been laid out. We have issued instructions to the field design offices that in each master plan, there shall be considered the potential for developing bicycle trails as well as hiking trails. So it is definitely a priority consideration.

Dr. LEVIN. May I say, from the standpoint of the scenic roads and parkways study, we consider these trails complementary facilities and we have asked the States to designate them in connection with their nominations for scenic roads and parkways. We have estimated costs on them.

I might add that for our final report, due sometime this summer, I have asked some doctors at Health, Education, and Welfare—they are part of the Recreation Advisory Council—to work on a chapter on the interrelationship of health, mental health and recreation. I have every hope that a real good job will be done by HEW on this subject.

CHARLES E. FRASER. In connection with Mr. Owings' suggestion of gifts to the Federal and State governments, there is a proposal, I believe, that Secretary Udall got through the Internal Revenue Service that gifts of scenic easements to the National Park Service or the national government were deductible. No provisions were made for gifts to State parks or to county park authorities.

Many people would be willing to give scenic easements to private foundations, the Audubon Society, and others, but not the National Park Service. Is there any method available for handling that?

Mr. HARTZOG. I am aware of the ruling for the National Park Service. I think that the wording of this ruling is broad enough in its

implication to cover the situations that you speak of. Certainly we are interested in such donations to States and local governments as well as to civic organizations. Four States now have enacted legislation to permit not only these deductions, but also the assessment of land encumbered with scenic easements, at lesser rates than those which are not, for people who have donated scenic easements.

I think there is certainly a direction here and we will be delighted to follow this up with Internal Revenue to see if it is broad enough.

Mrs. ALBERT LASKER. I am very interested to know if any additional large supplies of flowering trees and shrubs in nurseries are provided or are going to be provided on the scenic highways. In an attempt to try to plant more flowers, trees, and shrubs, I find the supply is very short. If we are going to make any real impact, I think we ought to have some long-range planning.

Dr. LEVIN. We have no authority to do anything with this; we have to go to the Hill and get authorization from the Congress. On the going highway programs, we are expanding our activities in the landscape field and I assume that the State highway departments, as we learned this morning, are doing whatever is necessary to reasonably anticipate this in connection with what they can see on the horizon.

Senator FARR. I might comment on that. This raises a good point. The Bureau of Public Roads could give us some help in urging the State conservation departments to grow more natural shrubs that could be used on the highways.

Dr. EDGAR WAYBURN. I have a comment and a question. Specifically, a highway may be charted directly where it should not go. To zero in on this, I would take the beautiful, majestic 500- to 2,000-year-old redwoods of northern California. In two places at the present time, the State highway department is attempting to put the highways through the State parks, through the trees, rather than go around them. Both areas have been deemed worthy of national park status if the Redwood National Park is to be established. A stop has been put up at Prairie Creek Redwoods State Park at the present time. But a go signal has been given at Jedediah Smith Redwoods State Park. A freeway has been routed through the National Tribute Grove of that park. This is an authorized highway and only this summer, while we are talking, funds are being sought to actually put the highway in.

Now, the question is, and I ask the Bureau of Public Roads, can or will the Federal Government, which puts somewhere between 80 and 90 percent of the funds into such a thing, even though it is already authorized by the State highway department—can the Federal Government stop such a thing?

Senator FARR. Mr. Hartzog and Dr. Levin. I might put it a different way. What happens if an impasse occurs between a State highway department and a conservation agency, and particularly where Federal funds are involved?

Dr. LEVIN. Normally in the Federal aid relationship that Congress has set up, the States initiate a project and the Bureau of Public Roads reviews it. Of course, the Bureau does review all elements of it and sometimes there is an honest professional difference of opinion between the Bureau and the State highway department. When this takes place there are professional discussions between the two. In most cases, there is a common understanding and sometimes there are changes made in the thinking of where a highway should go or where it shouldn't go.

In connection with the particular controversy you have in mind, I would rather not get into the specifics of it, but I would say in this case it is being handled in an appropriate way.

At some point, however, I know you realize that in any kind of public improvement program, at some point you have got to make a decision and once a decision is made, then, of course, you have got to go forward.

Otherwise, you see, we would be on dead center about the highways and we would continue to kill people at a fantastically high rate. It has been shown that freeways are three or four times as safe as highways of comparable design that carry comparable traffic volumes. Every mile of highway that we build of this kind, we will in the future try to make as beautiful as we can, and reconcile them with the environment as well as we can. But aside from this every mile of highway that we build will save American lives. This should be of great concern to us.

Senator FARR. Where there is a conflict between a conservation agency and a highway agency, is the controversy decided at the Federal level?

Dr. LEVIN. In case of a controversy, the State has got to document its case. If there is a conflict, the State in making its submission, has

got to indicate to the Bureau its reasons for divergence from the opinion of the conservation agency. This divergence must satisfy the Bureau of Public Roads. If it does not, we will have to disapprove the project.

Mr. HARTZOG. With respect to the specific area mentioned by the questioner, Secretary Udall has written the State in connection with this proposed location expressing the concern of the department. We work very closely with the BPR in these matters and, as a matter of fact, Rex Whitton has issued memoranda requiring that the conservation agencies be considered on these questions—on these interstate arguments. I think we are making progress. It is a difficult area.

Certainly, we recognize that we are going to have these differences. I have a great deal of confidence in Rex Whitton and his sensitivity to these problems and I believe that great progress has been made in the last few years.

Dr. CLARENCE COTTAM. I am wondering if the answer to part of this last question wouldn't be legislation? For 25 years we had an annual scrap to keep a four-lane highway out of Rock Creek Park. It is a current proposition. The argument we heard was if you get any Federal property, why not use it for public purposes? Yet a parkway would completely defeat the purpose for which those areas are acquired. It seems to me there ought to be some areas out of bounds for public road development. This could be turned into an eight-lane highway.

Mr. HARTZOG. I think you are absolutely right. I think this is one of the things that certainly is involved in this, that park land is looked on as free land and can be devoted to highways.

Now, we have been talking to the Bureau of Public Roads, particularly with Mr. Whitton, about this. Because very recently in St. Louis, and also in Jackson County, Mo., they paid for park land and it was reimbursed under the Interstate Highway Act. I think if the true costs of these park lands are taken into account in the highway rights-of-way, that perhaps we will minimize the impact of these arguments.

If it is an absolute necessity that the park land be devoted to a highway purpose, and the highway department is required to replace this in kind or in cash—an equivalent payment of park land—I think you would really begin to get at the root of the problem. The

problem up to this point has been this philosophy, that if it is a park, it is free, and certainly if it is a park it is open. So it is easy.

Somehow they seem to be able to find a blue pencil that hits that green spot.

LESLIE H. GOULD. I am not sure whether this is a question to Senator Farr or Dr. Levin or a comment made for the edification of the Nevada State highway engineer, Otis Wright.

It is nothing new for two State agencies to undo each other's work and nothing new for two Federal agencies to undo each other's work, but in Nevada we have the prospect of four of them getting together on the job. I mean the Nevada Tahoe State Park. I am talking about the new park in Nevada, the last piece of natural-looking land around the lakeshore. We have prospects of acquiring this land sometime during the next few months. It is characterized by steep rugged cliffs arising from a very shallow, relatively level area along the lakeshore. A narrow road now makes its own way south down this relatively level area.

If we get this land, it is going to be partly with matching funds obtained from Mr. Udall's department. If we get this land there is going to be more usage of it, and already the people at each end of the lake are clamoring to have the road widened and Mr. Wright of the highway department thinks they have something on their side.

On the other hand, if we get this road widened there is not much sense in our going to the trouble of having a park there because there isn't room for both the park and a super highway. The State park system is going to acquire this land almost immediately and almost immediately the highway department is going to take it over and build a road in it. We are going to acquire it with partly Federal money, perhaps up to 50 percent for acquisition and development. And Mr. Wright is going to use 89 percent of Federal money to destroy it.

I wonder if this isn't going to be a problem that is going to recur in many of the projects envisioned under the Conservation Act. I wonder if something can't be done now to form some kind of policy that will prevent this kind of dilemma, this kind of problem from occurring.

JACK B. ROBERTSON. Mr. Chairman, I would recommend that as a minimum, when you make your report to the President, that you would recommend at least one demonstration scenic highway in each State to be authorized. I believe if we can have one stretch of high-

way in each State constructed to scenic standards or reconstructed to scenic standards, then the citizens will clamor for more. I think unless we do this in each State, the scenic highway concept is going to be a long time coming.

WILLIAM GARNETT. Relative to the method of analyzing the need for highways, I think we have not yet made comment on where we stop building highways. I challenge the methods that are now used in determining this, the quality of analyses being used. I think we no longer should use only a traffic count to say we need a better freeway or a better secondary road, and I am particularly concerned about the secondary roads that should be scenic highways. I feel that we need more than the traffic count. We need to know why is the traffic going there, and take that into very careful consideration. In California there are many traffic count areas destroying scenic highways and I am sure that a high percentage of the traffic on that highway is there because of the scenic value. So I think I would recommend that some careful ecological studies be incorporated with some possible methods of surveying the purpose of that traffic.

Mrs. NATHANIEL A. OWINGS. I believe it isn't a question of whether we have a freeway up the north coast of California. It is a question of whether the freeway is allowed to bypass the parks. We are not questioning freeways versus two-lane roads. On the west coast the freeway has a dual contradictory role. One of its roles is to take people to the redwood parks, our superb natural beauty area; whereas on the other hand it intrudes into these public parks, these redwood groves, and it disturbs, scars, and destroys the very experience that the traveler comes to enjoy.

Can the Bureau of Public Roads develop rigid regulatory measures to guard against the using of Federal funds on routes that become destructive in their nature when they pass through parks and our most prized natural beauty areas?

Dr. LEVIN. Well, as we indicated a moment ago, I think there are procedures now in effect which will have a tendency to either eliminate or certainly minimize the adverse impact of highway improvement in relation to park lands. The requirement is that the conservation or park agency having jurisdiction over the park involved must make a finding as to whether it does or it doesn't find the highway use compatible with park use.

Frequently, there are instances where the State and the park people have gotten together nicely on this. Either one or the other has changed his mind about a former stand. Where the two are still divergent when it gets to the Bureau, then we all look at the record very carefully. Because of our increased affluence, because of things which have generated this conference, we all have become much more aware of doing what you are suggesting. I think in the future the adverse impacts, inconsistencies, the arguments that we have had will probably be at a minimum—at least I hope they will.

HAROLD GILLIAM. I would like to follow up on what has just been said and suggested by a number of people. The final decision on whether the Federally financed freeways should go through parks rests with the Bureau of Public Roads and I wonder, since the Bureau of Public Roads is not expert in parks, whether this decision should not rest with the Federal department which is the expert in parks; namely, the National Park Service.

I recommend that the National Park Service not only be consulted on freeways going through parks, but its consent be required whenever a Federally financed freeway is going to go through a park of any kind.

NICHOLAS ROOSEVELT. Does your panel or any other group intend to establish standards for scenic roads? The possibility was mentioned, but is anything definite going to be done on that?

Senator FARR. On the State level in California the Scenic Highway Advisory Committee in the month of June will establish standards.

Mr. ROOSEVELT. I mean on a nationwide basis.

Dr. LEVIN. In connection with our study efforts we have made an attempt to not only define what we mean by "scenic road" and "parkway" but we have set up certain criteria to assist the State agencies, and these have been conservation agencies as well as the highway agencies, in order to make nominations. We have set up as many as eight or nine different criteria.

Mr. ROOSEVELT. Are they available to the public?

Dr. LEVIN. I will give you a copy of our manual.

JOHN MACRAE. I wonder if there is any effort to make a national

inventory of the important scenic areas and then to establish priorities to be sure those important ones are saved.

Mr. HARTZOG. The Historic Sites Act of 1935 charges the Secretary with the responsibility of developing a national historic landmark program and this has now identified more than 500 national historic landmarks. About two years ago a companion program to identify natural landmarks was also initiated and approved by the Bureau of the Budget, is now underway, and 16 have now been identified. We expect to continue working on this as rapidly as possible.

I might say also that we have been able, in working with the Bureau of Public Roads and Urban Renewal Administration, to identify these in such a way that they will show up when the plans come in for review. The Urban Renewal and the Bureau of Public Roads people will know where most of the historic landmarks are and what they are getting into if they approve that plan.

Mr. MACRAE. Is there an absolute number?

Mr. HARTZOG. There is no absolute number. That's all that we have been able to do to date. These certificates have just been awarded by the Secretary. As a matter of fact, all these plaques have not yet been presented.

WILL SHAW. I would like to address my question to Professor Lynch, possibly to muddy the waters a little bit because everybody is talking about freeways in rural parks.

I want to ask you, what is being done with regard to—shall we call them scenic roadways through cities? What progress is being made in that direction to your knowledge?

Mr. LYNCH. To my knowledge very little progress. Most urban highways simply take a strip for the highway alone. There is no excess condemnation beyond the right-of-way. But by using excess condemnation, you might develop parks and new linear development integral with the road. There are a few examples today of structures being placed over roads. Mr. Halprin talks about building structures under roads. There is a whole new potential here.

ROBERT WENKAM. I merely wanted to add a little comment with respect to freeways. When a decision is made as to the route of a freeway I guess we all have to live with it somehow. However, I understand that about 50 percent of the vast interstate highway

system is still in the planning stage. Some of the corridors being selected for the unfinished portions of this system will destroy completely or seriously damage important scenic areas of natural beauty.

It seems to me that it would be appropriate, as part of this Conference on Natural Beauty, that a recommendation come from this panel to ask that there be reconsideration and a new study of interstate corridors now being planned with an increased emphasis on the aesthetics involved and the effect of the route on scenic areas before the routes are approved by the Bureau of Public Roads. We may have lost some areas in the past, but we stand a chance now to save a great deal from this date on.

I would like to make a personal comment. I sometimes feel that highway engineers give little more than lip service to aesthetics and, in this respect, the photographs that are displayed here to me represent a certain amount of misrepresentation. I like to feel that the highways should be designed from the point of view of the driver who is sitting behind the wheel of the car and I would like to see what these very same highways displayed here so beautifully photographed a half a mile away, would be like sitting behind the wheel.

As anybody knows in driving across the San Francisco Bay Bridge, all you see is a mass of steel girders and wires. You can't even see the bay. I think that if somehow you could get across to the highway engineer that he should design the scenic routes from an elevation of about 5 feet above the ground, we will then be progressing a great deal.

Secretary UDALL. I would first like to say I am glad the conference was introduced to Senator Nelson who is one of the most effective conservation people in the Congress and a brilliant conservation governor. If there were more and more people like him in public life—this would be part of the solution, too. I am sorry he couldn't stay.

I would like to say for the panel, I think you have an opportunity, one of the finest of opportunities of any of the panels, because I know the President would like to be able to recommend, when Dr. Levin's study is finished, a bold, new program to the Congress next year. And maybe you should continue your deliberations and not make your report until you have had a look at Dr. Levin's study and give us and him some extra support for it.

One other statement and I will ask the panel a question. I do agree fully with the points Senator Nelson made with regard to

building into all of our road systems, but particularly our scenic roads and parkways, horseback trails, hiking trails, and bicycle trails. We could spend an extra 5 percent of money on these roads to incorporate these features and make our roads for people. Up to now we have made them for automobiles and primarily for trucks. Let's put them in our highway system. But you can't have any conservation program ultimately unless you have money and this is one of the big questions. I think that we can find sources of money to get a modest program started next year and get it going, but what about 1972 when the interstate program is finished? Shouldn't the motorist who is really short-changed, in my judgment, in the present interstate highway program—shouldn't the motorist get a bigger chunk of that money so that we could have an effective Federal-State program of scenic roads and highways? What about that, panel?

Mr. MICHAELIAN. I think that's a wonderful idea and I hope that it can be accomplished. The countryside belongs to the people and the people should have an opportunity to enjoy what is being constructed and the manner in which it is being constructed.

One of the points that I tried to bring out, and I hope that we will take cognizance of it, is that more and more emphasis should be put on the utilization of all the corridors that we have. We have pipelines that are being used for aqueducts, gasoline transmission, and oil. We have the railroad roadbeds and they should be utilized to the fullest extent possible and they should never be allowed to be split up piecemeal. They should be kept as corridors and, at least, if we are going to abandon railroads we should use those corridors for truck routes. I would like to see more and more of the emphasis placed on revitalizing railroads to carry commercial traffic.

Mr. LYNCH. I would say "amen" and one other thing.

It seems to me if we are to restudy the highway systems we should not only be rethinking of the aesthetic implications, but social implications. I know this is beyond what we are supposed to talk about, but this is one of the critical things our roads are doing to our society.

Senator FARR. I guess you agree with your boss, Mr. Hartzog?

Mr. HARTZOG. Completely.

Dr. LEVIN. I would like to add without dissenting at all, that our scenic roads study is supposed also to make some findings with respect to alternative means of financing this program and we are going

to do this. I might also indicate that the highway officials themselves have recently initiated the so-called "after 1972 studies" and I think they are aware, Mr. Secretary, of the need to study what is going to happen after then, too. So we are all pretty much agreed on it.

Senator FARR. One remark in passing. In every study made by others, and in our own State, we found more people were engaged in automobile driving than any other type of outdoor recreation and this was in the year 1963. It goes up each and every year. With the new leisure, and people wanting to spend more time out driving their automobiles, they certainly ought to be able to drive on roads that are pleasing and roads designed for recreation.

The Federal interstate system was designed primarily as a fast highway system to move great and vast volumes of people and goods across the country. For the people who want to have recreation we have got to have greater emphasis on the scenic highways and parkways after 1972, when we complete the Federal interstate highway system. A good portion of that money could be diverted to the very use Secretary Udall suggested.

Mr. HARTZOG. One thing, Mr. Chairman. I want to emphasize the point which I think was implicit in what Secretary Udall said and also what Mr. Lynch was referring to, and that is, real opportunity to develop scenic roads now, particularly in urban areas in connection with the interstate highway system. The part of the interstate highway system that to a large extent has not been built is in the urban areas. If this is allowed to become just a sterile addition, scenic roads and parkways are not going to be able to do very much to uplift it in the years to come. I think the real opportunity is to apply some of these principles and concepts to this interstate system that is now coming into these urban areas. The routes are now being selected and certainly the money is available to build a scenic interstate system in the urban environment. This is one of the things that ought to be highlighted in any observations on this subject.

Mrs. DOROTHY MOORE. I would like to ask whether any thought has been given to the fact that some of these other uses may not be appropriately designed in the same corridor as an automobile highway and a scenic highway, in particular, walking trails. Several people have stressed the fact that the ideal scenic highway should incorporate bridle paths, walking trails, and so on. I wonder if these

should not be kept in more remote locations. I am sure Secretary Udall would see the logic of this, that they should be in areas much more remote, much more natural. In fact, the scenic highways should be kept well away from such established trails as the Appalachian Trail, for instance. Yet I have seen proposals for placing the automobile highway very, very close to an established hiking and camping trail.

Senator FARR. That's a good question for Dr. Levin and this committee to take into consideration.

Mrs. MILTON ROEDEL. We are greatly concerned in the urban areas going up the eastern seaboard, that we will lose our scenic valleys. We don't have redwoods, but we do have beautiful stream valleys. We can foresee that the scenic highways are going to head right in to the last precious open green spaces that we have. We think it might be possible to work this out if we felt we had a voice in setting up the various criteria at the local level.

We would be interested in working with the highway people. We feel that our State planning agencies, county and city, ought to be involved. We would like to see this almost mandatory in order to use the Federal funds for this kind of program.

Mrs. PEARL CHASE. I have been waiting for mention of several things which I think pertain to both urban and rural roads, scenic or general, and that is roadside rests. Roadside services, service stations, both urban and rural—what about the bicycle paths that serve the universities, the schools, and other agencies which require pedaled access? I think there are so many different laws, so many different types of roads, and distances between places, that no standard can probably be suggested that is universal. We take these matters up in connection with scenic highways and roads because they certainly are part of the total picture, particularly the service station.

Dr. KENNETH HUNT. We have acknowledged that highway rights-of-way so often are bound by costs. I would like to suggest that we look into legislation, making a very genuine set of criteria for pricing natural areas, whether they be rural or urban. One criterion would be density of population surrounding the area, which would help a great deal in the raising of the value of urban parks.

Another criterion might be the forest type. The National Shade Tree Conference has a set of scales of worth of trees. I wonder what that would figure out on redwoods. Of scientific significance are

really primitive natural areas, and I am thinking not only of public areas, but private lands—the extent to which they have ecological research value or educational value. If we could set up criteria for rating lands by law, then it might be simply the competition—the market price of some of these properties would cause other routes to be selected.

Statements Submitted for the Record

LAURENCE J. AURBACH. I would like to address a remark to the comment made by Mr. Owings regarding possible tax legislation to encourage gifts of property to State and local governments for open space purposes. Federal tax incentives are one very positive means to secure open space land for State and local governments. However, even under existing tax law, there are substantial tax benefits in donating property for local open space purposes.

The County of Santa Clara has a particularly aggressive and forward-looking open space program. The taxpayers have voted bonds for the acquisition of park lands. We have published a leaflet which explains the tax advantages of donating such property to the county under the present state of the law.

This brochure explains the charitable deduction that is available to those who give property to local governments. The new charitable deduction carryover is similarly available to those who participate in a county's open space program. In addition to the charitable deduction, a donor would save the tax he would otherwise have to pay on the profit he made from the sale. The brochure also explains how to make a bargain sale of property, i.e., the sale of the property to the county for the cost to the individual. A donor who grants a scenic easement, but retains the fee interest in the property would retain the right to use the property and take a charitable deduction. The possibility of reserving a life estate for a gift is also explained, as well as the tax advantages of making a gift during life, rather than by will.

Tax incentives to promote gifts of land to public agencies are important; it is equally important for the public to understand the status of law so they can both participate in local government programs and take advantage of the maximum deduction that is permitted to them by law.

VALLEAU C. CURTIS. In reply to Mrs. Albert Lasker of New York

City who asked whether anything was being done relative to re-searching the availability of plant materials in short supply:

There is in the Northeast an organization known as the Landscape Materials Information Service, composed of a nonprofit group of landscape architects, landscape contractors, public agencies, and nurserymen.

This organization publishes an inventory report from the leading nurseries of the Northeast twice a year.

They also compile an aggregate report from the principal public agencies of their plant requirements for a year ahead.

This organization has a membership of about 250 from New England, New York, Pennsylvania, New Jersey, Maryland, Delaware, and Ohio.

STANLEY A. MURRAY. I would like to add to Senator Nelson's remarks concerning trails in relation to natural beauty. Trails offer a most intimate means for the observance and appreciation of natural beauty, and a well-developed and maintained trail system provides justification for the preservation of specific areas in a forested or otherwise natural state.

The 2,000-mile Appalachian Trail, with its numerous side trails, is probably the best-known example of a truly extensive trail system. It represents a model of cooperation between private individuals and groups and Federal and State agencies. For over 40 years this primitive foot trail has been kept cleared, marked, and open to the public by the coordinated efforts of thousands of volunteers. The U.S. Forest Service, National Park Service, numerous State parks and one chamber of commerce have cooperated in the upkeep and preservation of designated sections.

An estimated 50 million people live within a 3-hour drive of the Appalachian Trail, and half the population of the United States lives within a day's journey. It provides an outdoor recreation experience of the highest quality for many thousands annually. Its use is expected to grow manifold as more people seek the solitude and restful atmosphere of remote areas. It will undoubtedly be necessary to construct and maintain parallel and cross trails in the heavily used areas.

The need for a protected area of sufficient width to protect adequately the natural character of the trail is apparent. Such an area is termed the Appalachian Trailway and is defined more precisely in U.S. Senate Bill 622, introduced by Senator Nelson and cosponsored

by 17 Senators representing nearly every Appalachian Trail State. In the national parks and forests, we are talking about one mile on either side of the trail, as this width has been so protected there for 27 years. In more developed regions, the trailway will have to be somewhat narrower. Multiple-use activities are permissible, with some restrictions.

It is important that the Appalachian Trail purposely be kept remote and wild, for remoteness and wildness—a primeval environment—constitute its prime asset. New highway crossings should be kept at a minimum compatible with other needs. Attractive crossings of all highways should be provided. Special attention should be given to the preservation of springs and other natural sources of drinking water.

Scenic parkways that would parallel the Appalachian Trail should be located on separate ridges of land from the trail, so that the primitive or wilderness environment will not be broken by the sights and sounds of the moving automobile. We ask this White House Conference on Natural Beauty to recommend that the Scenic Roads and Parkways Study currently being prepared stipulate that mountain parkways be located outside the proposed Appalachian Trailway zone.

The suggestions enumerated here are vital to the preservation of this tremendous outdoor recreation resource.

ANN SATTERTHWAITE. Before a massive new construction program for scenic roads and parkways is launched, I think the following factors should be investigated:

1. *Analysis of the demand for driving for pleasure.* The current scenic road study and much of the interest in scenic roads is based on the finding of the Outdoor Recreation Resources Review Commission that driving for pleasure is the most popular outdoor recreation activity. There has been no analysis of this demand.

Are people on the road to escape from mother-in-law back home, or are they just driving for lack of anything better to do? Or, are people on the road for some positive reason like going to a recreation site or just to pick up a bottle of milk at the Seven-Eleven? Is driving considered a positive recreation activity by itself?

Whatever the finding, I would suspect that an analysis of the demand for driving for pleasure will have a bearing on how to meet this demand. It may be that recreation facilities closer to home, that better publicized recreation programs, or even better public trans-

portation would take care of some of this market for driving for pleasure.

In any case, let's know what we are doing and whom we are serving before we forge new and expensive roads through our open lands, which are certainly limited in the metropolitan areas.

2. *Role of parkways.* Driving should be made as pleasurable as possible. Roads should be as scenic as possible, both through their location and design treatment. However, that does not necessarily mean that roads should be parks or in parks. Providing roads to make parks accessible is one thing, but winding roads through parks especially linear streambank parks, found in so many metropolitan areas, is another thing. Many stream and riverbank parks with roadways near the water cannot be used for anything other than moving cars. This, unfortunately, is especially true in large cities where the recreation supply is most limited.

Certainly the role of the parkways needs to be restudied. The best use of some of our choice recreation sites—especially in or near metropolitan areas—may not be roadways. Roadways, be they freeways with fast-moving, mixed traffic or parkways with slow-moving noncommercial traffic, are still essentially moving people. Is moving at 35 m.p.h. through recreational areas the best way to use those areas or the best way to appreciate those areas?

MAX M. THARP. Bicycle and hiking trails are important to many people. With only limited additional cost, cross-country and local bicycle and hiking trails could be provided on many of the highways already built or authorized. The rights-of-way are generally wide enough for these trails, and—with the limited access highways—grade or road crossings would not be a hazard. Such trails would be of particular value near the cities and through the rural-urban fringes into the open country.

Tying a system of bicycle and hiking trails into our regular highway network and our scenic roads and parkways would open up the possibility for expanding our youth hostel program similar to that in Europe. Hostels should provide overnight facilities and most of them could be located in scenic rural sections of recreational significance. The hostels should be close enough together so that hostellers could take hiking or bicycling trips, spending each night in a different hostel. Providing highway-oriented bicycle and hiking trails would encourage our citizens and foreign visitors to take time

to see our country and to enjoy its scenic attractions, natural beauty, and points of cultural and historical significance.

Col. J. LESTER WHITE. The Mississippi River Parkway Commission with the cooperation of the National Park Service and the U.S. Bureau of Public Roads, sponsored and brought into being the longest parkway in the world, namely, the Great River Road. This twin parkway, both sides of the Mississippi River and generally parallel thereto, is 5,600 miles long and extends from Canada to the Gulf. It is the only international parkway as it includes two Canadian provinces where the Great River Road encircles the Lake of the Woods.

The Great River Road, through the heartland of North America, serves upwards of 50 million people (1960 census) plus the millions of tourists who come to the beautiful Mississippi Valley.

The Commission commends President Johnson for his message on a beautiful America, which has been the objective of the Commission since 1938, for the 10 Mississippi Valley States.

My questions are directed to panelist Senator Nelson, of Wisconsin, as follows:

Will the impetus and the impact of this great Conference result in sufficient Federal legislation to complete scenic easement purchases and general roadside beautification of the Great River Road project?

Should separate bills be continued to be submitted for the respective parkways? You will remember for example, Senator Nelson, the Senate hearing directed by you May 22, 1964, Senate Subcommittee on Public Roads on the Humphrey Bill, S. 1672. Despite favorable comment thereon no action was taken because of the impending over-all scenic parkway study.

Will sufficient State and Federal funds be forthcoming (and when?) for the Great River Road now in existence, marked with the Great River Road emblem and traveled throughout its entire length?

Such funds are needed for the purchase of scenic easements, development of roadside parks and rest areas, the restoration of historic sites and general beautification.

Only by traveling the Great River Road along the mighty Mississippi can its beauties be fully realized and appreciated.

NORMAN WILLIAMS, JR. Some of the discussion in this panel exhibited the familiar tendency to regard zoning as a catch-all and

cure-all. Moreover, some of this was concerned with zoning, and some with nonzoning police-power controls.

The use of zoning to promote conservation and open space in this country is relatively unexplored. Moreover, this should be recognized as a special case of one of the major problems in implementing American planning—how to define the proper outer boundaries of police-power controls.

This is an area where zoning can play a major role—but within limits. For obviously not all open land can in fact be used for more intensive development. In many instances some land is clearly more suitable for some such development, and other land is suitable only for (or at least more suitable for), less intensive open uses. Since differential treatment is appropriate in such situations, zoning is the proper way to implement public policy—as long as the distinctions made are documented by the necessary technical work. Yet any such scheme must keep in mind a prevailing assumption in American constitutional law (and public policy): any private landowner who decides to insist upon having some economic return from his land is entitled to have it, either right away or at some not-too-distant time; and preferably he should have at least some reasonable choice of appropriate uses. (See for example *Vernon Park Realty v. Mount Vernon*, 307 New York 493, 121 North Eastern 2d 517 (1954); *Morris County Land Improvement v. Parsippany-Troy Hills*, 40 New Jersey 539, 193 Atlantic 2d 232 (1963).) The landowner, after all, is paying taxes on the land; and if the community wants to restrict his rights further, it can always do so and pay for it. In American planning controls, one of the next major jobs is then to redefine how far police-power controls can properly go, in various situations such as this—and, conversely, in what situations some form of compensation should be used to supplement or to supersede police-power controls. (Tax exemption, various kinds of subsidies, purchase of a scenic easement or various development rights—there are many possibilities.) In approaching this problem, a clear distinction should be made between those current (or proposed) controls providing clear public benefits, and those situations where one set of local taxpayers seek to cast a heavy burden on one taxpayer, for no very good reason.

In areas of rapid residential growth, as for example at the outer suburban fringe, the best way to approach this problem is from the other end, i.e., by regulating such growth. If a community can (*a*)

define the most appropriate areas for its future growth, and (b) regulate the location and the sequence of residential subdivisions, then that community is in a good position to do two further things. First, it can exercise some rational control over its rate of growth, and so over the increasing cost of new services. Second, having provided areas for growth, then—and only then—can it define appropriate areas for permanent open space. The first is a prime concern in most growing communities, but the techniques used have generally been clumsy. (See *Albrecht Realty Co. v. New Castle*, 8 New York Miscellaneous 2d 255, 167 New York Supplement 2d 843 (1957).) Acreage zoning is often misused for this purpose, apparently usually unsuccessfully.

Under a more rational approach, subdivision control could be used explicitly for this purpose, or a special zoning scheme devised. A recent detailed review of a well-known scheme in Clarkstown, Rockland County, N.Y., indicated that it worked reasonably well. (Upheld in *Josephs v. Clarkstown*, 24 New York Miscellaneous 2d 366, 198 New York Supplement 2d 695 (1960). I was the legal draftsman of this ordinance.)

A different kind of problem arises in very rural areas. As noted in the same panel, land needed and used for cropland is shrinking in many areas; and so abandoned land is on the increase. So far as I know, no one has focused attention on the appropriate proper future use for such abandoned land. If nothing is done, such land will gradually revert to brush and choke-cherry, at least for a long transitional period; and there will be a clear and present danger of cheap commercial development scattering all over the place. Neither will add much to natural beauty. Zoning is unlikely to work in this situation, in the absence of a sensible and realistic land-use policy.

JAMES W. WILSON. In our preoccupation with large-scale scenic road and parkway projects, let us not forget the potential in things as small and simple as flowers from seeds.

The green of trees, shrubs, and grass is pleasing and restful but the eye delights in occasional spots of color that relieve the green landscape.

Scenic roads and parkways offer many sites for planting large drifts of flowers which will reseed and become naturalized. Turn-outs, meadows, road cuts which are too steep or too rocky to mow, rest stops, campsites, stream banks, and fence rows are a few obvious choices.

Flower seeds give civic groups and children a way to participate in the planting of scenic roads. The creation of beauty for the enjoyment of others will surely sharpen one's own appreciation of it.

Once a road is dedicated as a scenic route, many people will desire to add to its inherent beauty. What better way could there be than for highway landscape architects to designate certain areas for the planting of flower seeds?

Only a few flowers from seed are adapted to naturalizing. Included are: Annual Poppy, California Native Flower Mixtures, California Poppy, Calliopsis and Coreopsis, Clarkia, Columbine (in partially shaded areas and on rocky slopes), Cosmos, Gaillardia (along the edges of woods bordering meadows), Hollyhock (along fence rows), Linaria, Lupin, Phlox, Shasta Daisy, and Sweet Alyssum.

These are not "formal looking" flowers. They would blend into the landscape as "naturally as a deer in a forest," to borrow a descriptive phrase from a conference speaker.

Most of the flowers listed set prodigious quantities of seeds. Calliopsis, Coreopsis, and Cosmos seed heads are avidly sought by such valued birds as goldfinches, chickadees, song sparrows, and meadowlarks. The social birds attracted to the roadside by flower heads filled with seeds would add the dimension of movement and song to landscapes along scenic highways.

Patches of flowers serve to slow traffic, to draw automobiles into turnouts, and to draw passengers out into the fields. This is in harmony with one of the purposes of scenic roads and parkways—to give citizens a pleasant environment for leisurely driving and relaxation.

Many civic groups, youth organizations and conservation clubs have for years successfully planted seeds along highways and byways. Fine stands of flowers have been reestablished where they had been wiped out by erosion, overgrazing, or fire.

Out of my experience with these groups, I would be happy to offer (at no obligation) advice on establishing stands of roadside flowers from seeds, including how to incorporate flower seeds into grass seed mixtures for road cuts and shoulders that are not to be mowed. I can also help you locate specialty seedsmen who offer unusual seed-grown flowers for difficult soil or microclimate conditions.

CHAPTER 10

ROADSIDE CONTROL

10:15 a.m., Tuesday, May 25

The Chairman, Mr. IVES. Gathered with me here today as fellow panelists are a group of citizens, distinguished in their specialized lines of endeavor: industry representatives, conservationists, and Federal and State officials, who are combining their talents to assist the President of the United States in his program on natural beauty with firm recommendations for its implementation.

Since the problems confronting the Nation are fairly well known to all of us as they pertain to roadside control, the panel will spend a minimum of time on the diagnosis and a maximum on recommendations. Thus, we hope to be identified as an action oriented panel.

Some of the features that will be discussed are: (1) encumbrances on the right-of-way; (2) junkyards and borrow pits; (3) litter; (4) landscaping; (5) erosion control; and (6) acquisition of scenic strips along the right-of-way.

As most of you know, the normal problems of roadside control are the responsibilities of the various State highway departments with active operations in this field being the responsibility of the department's landscape engineers and architects.

Roadside development is also of considerable concern to the Bureau of Public Roads and the Department of Commerce. Likewise it is of concern to the American Association of State Highway Officials and the Highway Research Board, each of which has an operating committee on roadside development.

Anyone and everyone who uses our highways has a big stake in roadside control—businessman, tourist, garden club devotee, and the housewife on her way to shop. All of us have a right to expect that our highways will be safe, well maintained, and pleasant to look at

Members of the Panel on Roadside Control were Lowell K. Bridwell, Mrs. Cyril G. Fox, Howard S. Ives (Chairman), Mrs. Jack Marnie, Senator Maurine B. Neuberger, David Shepard, Erling Solberg, and Philip Tocker. Staff Associate was Marion A. Hornbeck.

and that they offer no incurable unsightlinesses. The question is, can it be possible to have and to keep all these things? The President of our great land thinks so—we think so—and that is why we are here.

We hope in this panel to emphasize some of the problems through discussion by panel members and audience participation, and as a result of the conclusions reached, present recommendations to the President for final implementation of his plan to re-create and preserve for posterity America's great heritage, its natural beauty.

A large order, perhaps, but this is a larger and faster world than ever before, and there is no time to dawdle on matters so long neglected.

Mrs. Fox. Beauty loves all, and I know that we are all, as the roadside councils have long been, against sin. So we will start from there.

I was going to give a short review of what we have learned by experience in Pennsylvania, but what is past is prologue. I think those of us who have listened in on these wonderful conferences for the past two days and those of us who have read through reams of homework in practically every mail are well aware of what is needed and what we should be doing. But our question, as I see it, is how and primarily when. So this morning, I am going to confine my remarks to four prime subjects with respect to which I feel I can speak from experience. I believe my remarks will reflect the consensus of all roadside councillors throughout America, including Hawaii. Hawaii, of course, is the veteran—they have been working on it there for, I am told, 50 years. We have been working for 30 years in Pennsylvania while California has been at it for almost 40 years.

This is old hat to those of us who have been working in the vineyard through the years—giving our all, as dedicated beauty lovers. Out of this experience comes this brief survey of what we feel is needed from the government to implement a program of control, to reclaim the highways that our tax money has paid for and to protect them for the future—and not keep on making the same grievous mistakes that have been made in the past.

First and foremost, I would like to refer to the need for a national clearinghouse for information and help for all State roadside councils. We had such an organization once which was responsible for all the rest of us being organized and starting out on the right foot. This was the pioneering of Mrs. Elizabeth Lawton who, you may

remember, was the first one to alert this country on what was happening to its highways. We learned our ABC's from Mrs. Lawton, but unfortunately she died in 1954. We have been at a loss to replace her, and we have not had a national clearinghouse for information and help since. It is desperately needed.

In order to bring such a clearinghouse into being, naturally, we need to have it properly financed. The original one was financed by a foundation—I suppose it was before the days when the tax issue loomed so prominently, but that is the second big must—we need to have our work reclassified as educational. It definitely is this; we are not just a group of starry-eyed billboard fighters. The roadside problem must be treated as a whole. We know that there are other problems along the highways besides just commercial outdoor advertising.

In order for roadside councils to operate effectively, we need to have a tax ruling which would encourage foundations and individuals with extra money—and they seem to have plenty of it still—to help us in establishing a clearinghouse for information.

Unfortunately, our opposition has been able to write off the millions and millions of dollars spent in fighting what we are trying to do. They have been permitted to lobby, to publish ambitious looking, so-called educational materials on what philanthropists they are by donation of billboard space, and they have been able to charge it off as a business expense, while we have had to scrounge for stamp money. We have no paid people. We are just volunteers trying to fight for the beauty of our country.

Thirdly, we need a citizens' advisory council, and not just an advisory council comprised of interested groups. We need to establish a citizens' council comprised of the leaders of our State roadside councils. They are the ones that have been doing the work. They know the answers. They should have their right to advise at the top. Whether they report direct to the President is something to be determined.

Fourth, and last, the existing Federal legislation must be amended to remove the areas excepted from control which, as we all know, constitute areas where outdoor advertising can flood the landscape. We must make billboard control mandatory on the States. We must prohibit off-premise commercial advertising and outdoor advertising, per se, must be confined within areas zoned as industrial and commercial.

You will hear later that they must be permitted in any known business area. Well, that has been the roadblock for 50 years, because they interpret that to mean that any hamburger stand, any farmer's stand selling his farm products as representing a business area.

So that is our fourth need for State roadside councils.

Mr. TOCKER. As our chairman has stated, I appear here and have been invited in the capacity as Chairman of the Board of Directors of the Outdoor Advertising Association of America.

This Association represents over 600 members that operate in some 15,000 markets throughout the United States. I think I will have for you what I hope you will consider an agreeable surprise.

As to the position taken by our Board of Directors and which I have been instructed to communicate to this group, that board is comprised of representatives from every State in the Union. I should ask you to consider the fact that we have not been entirely impervious all these years to the requirements of scenic beauty. Over two years ago our association, desiring to cooperate in the manner that we felt good citizens should, set up a committee and requested prominent citizens to help us determine what was a scenic area that was not officially designated as such so that we ourselves could seek legislation in the various States restricting our right to maintain and erect structures. Those citizens were the State Highway Commissioner of Texas, a planning consultant, a lawyer, and the chairman of public affairs of the General Federation of Women's Clubs.

Frankly, those people could not come up with a definition that they felt we could incorporate into our law. However that may be, I think there are things that should be determined by this conference—what are we talking about when we talk about a billboard? I have seen photographs in newspapers—I have one in mind by the Washington Post labeled “41,000 Miles of Billboard”—and there wasn't a single billboard in the photograph.

Not too long ago, an item appeared in the California newspaper quoting Governor Brown as condemning ugly and willy-nilly advertising billboards.

One of our representatives wrote Governor Brown and asked him what he was talking about. I read from his reply—

I am afraid that I was either misquoted or you did not read the statement correctly. What I said was, that the sizes of the billboards

on the highways were uniform and well spaced. I was complaining about the little ones which, without rhyme or reason, are all over used car lots and real estate offices in the beautiful countryside of Sacramento County. I don't think you have anything to do with these. But you really should try to help me get rid of them.

Well, I urge that all of you, when you discuss billboards and condemn them, make clear what you are talking about. Are you talking about business identification signs or are you talking about other structures or are you talking about both? But make it clear.

Finally, I heard Secretary Udall this morning refer to bulldozing for building highways. There also can be a bulldozing approach to natural beauty. I have before me from the New York Herald Tribune, the Sunday edition, May 23, an article that should give some cause for thought. Petroleum marketers were told last week that most traveling motorists apparently have some preferences that conflict with beautification standards set for the interstate highway system. A recent survey indicates most traveling motorists would prefer more gasoline and service stations along the State highway system than the national standards allow.

Results of the survey conducted in California, Oregon, Washington and Arizona by the Western Oil & Gas Association disclosed that 80 to 81 percent of the 3,516 traveling motorists interviewed thought each State should permit service stations to have highway informational or advertising signs. The suggested distance between the advertising sign and the service was most often within a range of two miles or less. Nearly half of those who thought highway signs were the best method for alerting motorists also favored more than one sign per station. About 92 percent favored signs identifying gasoline by brand.

Well, I would suggest that when you consider this beautification you give some thought to the interest of the traveling motorist.

Now, despite all this, we are not insensitive to the times and I would like at this time to read a statement that I have been instructed to issue on behalf of the Board of Directors of the Outdoor Advertising Association of America.

I will conclude on that statement.

In future generations, among the notable achievements of the Johnson administration will be the awareness the President and the

First Lady have created among Americans everywhere of the need to beautify our country.

The standardized outdoor advertising industry can play an important role in the President's beautification program through the location, relocation or, in certain areas, the removal of its structures. It is entirely consistent to preserve this important medium of commercial communication and at the same time to develop a more beautiful America.

The American countryside in the last half of this century should properly be preserved for the enjoyment of all Americans. Billboards have no place in the scenic areas of our highways. Cities and towns, too, in the last half of the 20th century should and must be places of beauty. They must also be vital and productive for a growing America. Within this framework, outdoor advertising—as a service business—stands as a vehicle to communicate commercial and public service messages in the interest of the public as well as the American business system. Outdoor advertising will, in the future, relate to the environment of the community, and we will support legislation and engage in a voluntary effort to meet these ends.

Outdoor Advertising Association of America, representing the standardized outdoor advertising medium, pledges its enthusiastic and aggressive support of legislation embodying the following principles in furtherance of President Johnson's beautification program:

1. We will restrict our outdoor advertising structures to those areas zoned for business and industry or predominantly used for business and industry.
2. We will remove outdoor advertising structures from areas other than those zoned or used for business or industry in accordance with equitable and appropriate regulations.
3. We will assign priority to the removal of structures in relation to the importance this may bear to the improvement of scenic views.
4. Regardless of zoning, or business use, we will voluntarily refrain from building structures in locations which may interfere with scenic or historic areas.

This is what we propose to the President of the United States.

Senator NEUBERGER. I am glad to hear through the words of Mr. Tocker that the Outdoor Advertising Association is going to somewhat emulate the American Medical Association. After years of opposing control of billboards as the AMA did Medicare programs, they have finally and reluctantly been dragged in.

I am reminded a little bit of one of the recreation activities that we used to have in Portland, Oreg., which was to take young people down to the Union Station to see the trains pull out for Chicago. Great, yellow-painted Union Pacific diesel engines would be there, and it was great excitement to see them pull out. One time a little boy had his hand on the engine as the wheels slowly began to move and as it pulled out of the station, he said, "Whee, daddy, I pushed it."

For some time it has been a spring ritual, like the swallows returning to Capistrano, for Senator John Sherman Cooper of Kentucky and me—when we met, maybe, at a party or on the little tram going over to the Senate—to discuss reintroducing our billboard bill. He would say to me, or I would say to him: "getting time to think about reintroducing the billboard control bill" and that time is with us again.

We have legislated piecemeal by offering a carrot instead of a stick to induce States to come into the billboard control orbit.

Now, with the present law expiring in June of this year, Senator Cooper and I and other members of the Congress are tired of this method of legislating, and with the help of the President of the United States, and, I gather, with the Outdoor Advertising Association and many other groups, we are about to introduce a bill which has no more of this hanky panky. I hope this bill says from now on out: "If you want any money from the Federal Government for your interstate highway system, control those billboards." That's what we are going to work for.

I have heard this old story about self-policing by various industries for all of my legislative life, which goes back only to 1950. It doesn't work, my friends, until there is a law or the threat of a law or the threat of activity from big pressure groups. This time I hope it is the public. These people don't police themselves. They don't remove billboards. They don't control them. But when they see that we mean business, then of course they want to come around.

Now, let me tell you of my experience in the Oregon legislature. We are proud of the scenic beauty of our State. As you are going to hear from the distinguished lady from Hawaii, we know about Switzerland, we know of many other scenic areas where the people take a great deal of pride in conserving. So we attempted to set up billboard control in scenic area preservation activities in the State of Oregon. Who was there to be lobbying against it with all its might and money and strength? The billboard industry—the Outdoor

Advertising Association. And what was the motto and the theme and the cry of their lobbyist to us? Why, these highways are not just confined to the limits of one State, this is a national problem. (This was before the interstate highway system was set up, but it was being anticipated.) Let's make this a national beautification program. They helped to defeat the legislation.

Well, it wasn't very long, just a matter of four years, until I found myself living in Washington, D.C., where my husband was a member of the Senate. And I used to sit in regularly on the highway department hearings and lo and behold, my old friend, the lobbyist from Salem, Oreg., was there and what was he saying? This is not a national problem; this is an individual State problem.

Well, we are a little more sophisticated about it now. But let me tell you that self-policing doesn't work. You've got to have a law!

What has the Federal Government attempted to do? It has attempted to coax, by offering the bonus. Twenty States out of 50, have passed legislation to conform to the Federal law and the Department of Commerce standards. But how much money has been paid out because people were willing to conform or control? Less than half a million dollars—about \$450,000 along all these miles of interstate highways. Why? Because they haven't been able to control billboards in most cases.

In fact, the fault of the present law and restriction is that it only applies to rights-of-way that were acquired since July 1, 1956. In many places, the new highway, of course, was built along existing rights-of-way and this is where we have been hamstrung—even though we have been conforming with the Department of Commerce standards. It is because we used our existing rights-of-way. I think that the law simply has to be changed to make this much more effective. I enjoyed the comments of Mrs. Fox about the tax deductible item which has proliferated some of the worst abuses along the highway.

Let me come back to Oregon once more to show you an example of what can be done.

Just a short time ago I was in Oregon and traveled over a new freeway through our city. It is depressed and, therefore, runs under existing streets. This necessitated a lot of banks. It is very new; it has been open only a very short time, and yet those banks are beautifully planted with azaleas and scotch broom. It is pretty now, but you can foresee what it is going to be. Of course, we are

unique because you can't stop things from growing there. But I am concerned with more than billboards. I am concerned with planting and beautification. But as a member of the U.S. Senate, I am going to do everything I can, and I need your help, to see that this scourge of billboards along our highways is done away with.

Mrs. MARNIE. There are no commercial billboards in Hawaii. The absence of billboards and the opposition to them is a publicly accepted island tradition and custom. Visitors are impressed and many inquire how this was accomplished.

This enviable position has only been attained and maintained through the support of civic-minded citizens, businessmen, local newspapers, responsible government officials, and through the hard work and constant vigilance of the Outdoor Circle.

The Outdoor Circle is a 50-year-old women's organization dedicated to the preservation and enhancement of Hawaii's natural beauty. This group of dedicated volunteers promotes a broad program of city beautification. Today, Hawaii is reaping the benefits of the early work of this group of women.

One of the projects undertaken by the Outdoor Circle, in 1913, was to rid the city of billboards completely. It is difficult to visualize that billboards formerly disfigured the highways of Honolulu, the slopes of Diamond Head, the slopes of Punchbowl, which today is the National Memorial Cemetery of the Pacific, and, even the famous scenic site, Nuuanu Pali.

The elimination of billboards in Hawaii is part of our State's history. More than 14 years of hard, uphill work were required to convince local and mainland merchants that billboards were not going to permanently deface the landscape of Hawaii. The final outcome was that members of the Outdoor Circle bought out the local billboard company with money which they raised—these women owned a business—which they promptly scrapped.

The only real weapon the Circle had was the overwhelming support of public opinion.

Alert to the need of legislative control, the Outdoor Circle, in 1927, proposed a bill regulating billboards. That bill passed both houses of the legislature and was signed by the governor.

A major part of the Circle's efforts in promoting city beautification has been devoted to sign control. The Honolulu city and county sign ordinance was the joint endeavor of the city, the Outdoor Circle, the Honolulu Chamber of Commerce, Honolulu

architects, and the sign manufacturers. Today, all counties have similar ordinances governing the size, placement, and construction of signs relating to businesses conducted on the premises.

Hawaii had no difficulty, in 1961, in qualifying for Federal funds for prohibiting billboards adjacent to the Interstate and Defense Highway.

Recently, the Circle appealed to Gov. John A. Burns to update the existing statutes relating to outdoor advertising. As a result, identical bills were introduced in the 1965 legislature as an administration bill. The proposed bill covers all outdoor advertising devices . . . and establishes the principle that advertising of any activity is allowed only on the premises where that activity is carried on. Signs continue to be subject to regulation by the counties.

This proposed bill is now in a joint conference committee, having passed both houses of the legislature. Committee reports stated that, with the bill's passage, the public welfare and public interest will be better served, and the natural beauty of the State better preserved . . . that benefits can be expected for the State in the scenic roads and parkways program. The only real controversy is the political poster provision. With the current problems of reapportionment, the State legislature is presently recessed. When it reconvenes, we are hopeful that the Outdoor Advertising bill will be enacted.

I would not want to give the impression that Hawaii is without sign problems. The work of sign control is continuous. The Honolulu City and County Sign Ordinance is presently being challenged through the deliberate erection of illegal signs.

Our organization devotes a great deal of time to answering correspondence from many groups—national and international—seeking information on billboard control and all phases of city beautification. It is evident that a national clearinghouse for the countless organizations interested in promoting the preservation of natural beauty is definitely needed.

No one can say it better than Grady Clay, editor of *Landscape Architecture Quarterly*. In his editorial in the July 1962 edition, he states:

We have much to build upon, a host of existing groups with common interest in improvement. . . . They need a clearinghouse; a reference center; a source of guidance, advice, and help. Thus, they can rise above local partisanship, remain above self-seekers, overcome

public apathy, fight uglification, and help create a more beautiful America.

ERLING D. SOLBERG. Roadside zoning regulations may be applied by local and State governments and perhaps by Federal agencies. Regulations may include use, setback, building height, design, and other regulations needed to attain desired objectives.

Roadside zoning at local levels is often ineffective. Local governments are badly fragmented but the roads go through. Regulations are ineffective, due to local pressures. Zoning is not retroactive and cannot correct mistakes that occur before zoning. Zoning powers are permissive rather than mandatory. Many local governments fail to zone. Although three-fourths of our 3,000 counties have zoning powers, less than 450 have zoned. Also, only about 10 percent of the Nation's 17,000 organized towns or townships have zoned.

Zoning regulations are applied directly by nearly a dozen States, usually for local areas. Zoning regulations, applied either by the State legislature or by selected State agencies, are found in Florida, Kansas, Michigan, Mississippi, North Carolina, Oklahoma, and Hawaii, among other States.

Hawaii empowers and directs a State land use commission to place all land in the islands in one or another of four kinds of zoning districts—agricultural, conservation, rural, and urban. Counties may apply additional zoning regulations in all districts except conservation, but their regulations must not conflict with those applied by the State zoning ordinance.

Direct zoning by the State occurs where State interests are directly affected by local land use, major zoning benefits are nonlocal, a State agency benefits materially, or local zoning is ineffective.

Among recent Federal promptings of local zoning are a 1964 act, which empowers the Secretary of the Interior to withhold sale of certain lands pending adoption of suitable local zoning ordinances, and two bills, H.R. 797 and S. 897, 89th Congress, 1st session, which respectively propose creation of a national recreational area in Trinity County, Calif., and Saint Croix National Scenic Waterway in Minnesota and Wisconsin. Both bills propose suspension of eminent domain powers so long as an applicable local zoning ordinance, approved by the Federal administrator, is in force. But such suspension shall cease if any property is subjected to a zoning variance, exception, or use in violation of the approved zoning ordinance.

Three suggestions for Federal roadside zoning might be considered. First, the Secretary of Commerce might be empowered to acquire by purchase or condemnation title or lesser interests in roadside lands now used for automobile graveyards, billboards, or other distracting uses. Similar powers might be conferred concerning roadside lands on which distracting uses are about to be established. Eminent domain powers as to the latter lands might be suspended so long as a local or State zoning ordinance, approved by the Secretary is in force and applicable to the particular lands.

Second, the Secretary might be empowered and directed to zone roadside strips of stated widths along selected classes of highways. Zoning powers might be limited to use, setback, height, design and other regulations needed to attain Federal objectives. The zoning regulation would prevent establishment of new unsightly uses and structures. Existing nonconformities might be abated by amortization, purchase or condemnation, penalties, fees and assessments, income tax incentives and penalties, screening, or landscaping.

Finally, the Secretary might be granted standby zoning powers to be exercised if a local government or the State, after notice and within a stated period, fails to zone the roadside involved.

Mr. SHEPARD. I take as my job in this panel presentation to do two things: one, make very briefly a remark of my own and second, to extend somewhat the indication that Dr. Solberg has already given you very effectively, that the total time of our preliminary discussions in the panel was not spent only on billboard advertising.

I take as my text what I thought a very commendable remark of TVA Chairman Wagner in the discussion earlier this morning; namely, "Beauty as well as economic strength."

A constructive examination of roadside controls must take into consideration the relationships between the various elements of the integrated whole and the balances which have to be struck because of the competition between those elements for limited funds.

The basic requirement: a safe and efficient highway takes—as it should take—the bulk of the funds provided for a highway program. Those parts of the available funds to be devoted to screening junkyards, acquiring and protecting areas adjacent to Federal or other highways, and related protection and enhancement of natural beauty can be excellent investments. Funds so invested, however, are not then available strictly for the design, engineering,

construction, and maintenance of what I learned the day before yesterday is referred to by the experts as the "traveled way."

The choices necessarily to be made between these competing demands are often not easy to make. The coordination between them—so far as I can see—has been done in spotty fashion, some authorities turning in a good coordinating performance and others not so good. I suppose this must be about par for the course.

The development of the relationships between Federal, State, and local authorities as discussed yesterday by the panel of which Mr. Goddard was chairman is surely crucial to successful coordination of the very diverse but connected elements in a complicated problem. The demands for the right kinds of roadside controls have to be coordinated by the appropriate authority with the competing demands arising from other parts of the whole highway program.

In the preliminary discussions in our panel, the areas hardest to coordinate well became evident quickly. Not necessarily in the order of importance and certainly not in the order of the intensities of the heat generated in the discussion of them, they could be listed as:

1. How to get the State and local authorities to take the best advantage of available Federal help for the protection of natural beauty.

2. How best to protect against impairment of natural beauty by advertising devices.

3. What to do about the champion eyesores: automobile graveyards, junkyards, borrow banks, and spoil areas.

4. How to prevent litter on the highway or roadside.

As the report presented by our chairman shows, we made some progress toward some good recommendations, and we got stuck in our efforts to agree on one or two others. This shows there is more work to be done on roadside controls and that will be no surprise to anybody. But then, what panel did solve all the problems?

STATEMENT OF MR. BRIDWELL.* For most Americans, roadside areas are a part of their daily environment. The character of that environment depends largely on the use—or the misuse—that is made of the land adjacent to the public thoroughfares.

Except where highways traverse publicly owned land, the areas adjacent to our highways are privately owned. The Federal Government, of course, has no direct jurisdiction in such instances to

*In Mr. Bridwell's absence, this paper was read by Mr. Hornbeck.

determine the land use. That is a matter resting within the sovereign power of the States and their political subdivisions.

Despite this lack of jurisdiction to prescribe land use, the Federal Government can do much toward insuring that areas adjacent to Federal-aid highways are beautiful and attractive.

I suggest that the Federal Government can and should take, with Congressional approval, the following action:

1. The States should be required to expend a portion of their Federal-aid highway funds for the preservation, restoration, and enhancement of beauty in roadside areas.

Under existing law, the States can, in their discretion, use a portion of their Federal-aid highway funds to purchase adjacent strips of land of limited width in order to preserve scenic beauty. They can also use funds for landscaping within the rights-of-way. But the authority is limited in scope and is discretionary with the States. It needs to be broadened and made mandatory.

The Secretary of Commerce should be given authority to waive the mandatory requirement if he finds the expenditure would not be in the public interest. In some States the funds might be better spent for construction or other purposes.

2. The Congress should enact legislation conditioning the grant of Federal-aid highway funds with the requirement that the erection and maintenance of all outdoor advertising signs be controlled in accordance with Federal requirements. Enactment of such legislation is essential if President Johnson's goal is to be realized.

Legislation enacted by the Congress should prohibit all off-premise advertising in areas within 1,000 feet of the outer edge of pavement of the Federal-aid primary and the Interstate System of Highways, except for those areas which are zoned commercial or industrial or where the land use is in fact commercial or industrial.

(Mr. HORNBECK. Departing from Mr. Bridwell's speech: I want to say that the billboard industry gets blamed for a great deal of the blight which is due to the so-called small signs. I want to assure Mr. Tocker, whom I have known for two years and whom I hold in high regard, that our concern with the roadside environment includes all signs, displays, and devices and is not confined solely to billboards.)

Off-premise brand named advertising is not essential to the needs of the traveling public. Information such as lodging, restaurants, automobile services, and other information in the interest of the

traveling public can be provided in ways that avoid the visual aggressions of forced viewing and respect the right of the motorist to be let alone.

In this connection, it is encouraging to note that the courts are beginning to recognize that outdoor advertising involves not so much a use of private property, but principally and primarily a use of the public thoroughfares.

3. The Federal Government should furnish technical assistance to the States and local communities and should work closely with them as well as civic groups and organizations.

Mr. IVES. I would like to take a few minutes myself on a subject that hasn't been discussed too much and to comment very briefly as a member of the team that is primarily charged with roadside control. Apparently there is a lack of understanding as to what highway departments do, and the people that work with them—the landscape architects—and the manner in which they operate. I am not going to dwell on it. I just hope there will be a little better understanding of the highway administrator's problem in that he is concerned not only with throughways and expressways, but secondary roads, scenic roads, and he has been working on it for years. The only commodity that he doesn't have in order to implement this thing is money.

I would like to talk just for a moment on a subject that is very close to my heart—and it should be to every individual in this great conference—and that is the problem of litter.

Now, no matter what this conference recommends, no matter what legislation is passed, no matter how we regulate things, no matter what improvements we make in any activity that is being discussed here today, we are still faced with the problem of litter.

In the highway field, it is a serious thing. It costs the highway users a minimum of \$100 million a year, enough to build a couple of miles of super highways and expressways in each State, and eight miles of secondary road.

For example, it costs 32 cents to pickup one piece of litter which may be worth two cents.

The question that I propose to the conference, is it worth it? As far as this panel is concerned, I think I can speak for them. We will probably come up with some pretty stiff recommendations to control this litter. It is getting worse instead of better and I don't know how to control it.

Questions and Discussion

LAURENCE JAY AURBACH. I would like to speak from the point of view of local government. The control of roadside uses is almost entirely a matter of local control.

I would like to suggest that the Federal Government could help local government tremendously by suggesting standards or proposing a model ordinance for local governments to adopt relating to roadside control.

This would relate to signs, billboards, to architectural control, and perhaps have a retroactive effect so it could upgrade areas already blighted.

The second point that I would like to make is this: this panel seems to assume that commercial and industrial areas that are either used or zoned as such should be excepted from a prohibition of off-site advertising. I would like to contest that assumption. From the point of view of the user of the road, there is no reason to except any area from desirable control. So before this becomes conventional wisdom, let's examine this supposition.

Mrs. RALPH A. REYNOLDS. As far as I know, and as far as I have been able to find out, no State has acted on the suggestion of the Bureau of Public Roads in its standards for interstate highways. This suggestion is that all off-premise advertising signs, that is, billboards, be removed and that small-size signs for motorist services be placed on information panels in information sites within roadside rest areas. Implementation of this plan is most desirable for it would give the motorist the information he needs and make billboard advertising unnecessary.

I want to make two recommendations:

1. That this conference call on the outdoor advertising industry to take immediate steps in those States which have enacted laws conforming to Federal requirements to implement the information site plan; voluntarily, to remove their conventional billboard signs when the information site is operational. They may find that the information site will provide a new source of profit, and at the same time the industry can become a public benefactor.

2. That this conference call on the States which have complied with the Federal standards to implement as soon as possible the information site plan on their interstate highways with or without cooperation from the outdoor advertising industry, and that this con-

ference call on the Bureau of Public Roads to lend every possible assistance to the States in working out satisfactory formulas for such implementation.

Mr. IVES. This again bears out my contention that there is perhaps not quite enough communication between interested parties and what the Bureau of Public Roads and the various State highway departments are doing in the roadside rest areas and service areas throughout the Nation.

Many of these things are already accomplished in the area that you suggested, and many of them are being planned. So there is much reason for hope.

HENRY D. HARRAL. It seemed yesterday that the people in this conference either did not want roads or highways, or that if they did want them, they wanted them to be built by certain private pressure interests. I think that this conference should try to build a working relationship between the highway administrator and the other groups interested in beauty.

The highway engineer was characterized as an insensitive person. I don't think that is true. I have known too many of them. In our area, we are working on roadside development improvement, including the elimination of billboards. The present billboard control bill before our legislature is more strict than any the Federal Government has proposed. I would be very happy to have billboard control made mandatory at the Federal level. But I think it is necessary for everybody in this room and at this conference, who is interested in the promotion of natural beauty not to condemn the highway design engineer. I think he is moving ahead in aesthetic design just as fast as the general public will let him move.

Some of the things we are doing now, we would not have been able to do under any circumstances with Federal aid 15 years ago. We are moving ahead and we want to work with you. I don't think highway designers and builders should be whipping boys. We are working with the people here, not against them.

Mr. IVES. I don't think we should feel too sorry for highway administrators. I get whacked every day. This is nothing new. But I do think that there should be greater communication and more public dissemination of information as to what various people who attend this conference are doing, and I am hoping there will be a general exchange of information.

Mrs. J. MELVIN NELSON. I have a question I should like to ask you, Mr. Chairman.

In view of what we are trying to do in this beautification conference and in view of what our President has suggested, why is it that there is a representative of the outdoor advertising industry sitting on this panel, considering their defamation of scenic views? They are one of the most destructive elements of beauty in this country, and I am talking about all kinds of signs, all types, including billboards. Why didn't you call in representatives of the strip miners? Why are they sitting in a position on beautification issues? Why don't we have a junk car dealer, or water polluter, or beer can maker, or litterbug sitting on the panel?

Surely, they, too, have some ambiguous statements that they could have made to defend themselves.

Mr. TOCKER. May I reply?

Mr. IVES. No, you may not. We are not going to start a controversy. It has been a valuable adjunct to have Mr. Tocker here and he has made some real statements.

FRANCIS S. LORENZ. It seems to me that we are all over the lot on this subject of natural beauty. What are we seeking to accomplish? Who are we blaming? Who is going to give up something in order that some other segment of our population gets something? Beauty, as the saying goes, is only skin deep. What might be beautiful in one man's eyes may be ugly in another's. A person in love looks through a pair of eyes that sees beauty in everything.

It seems to me that the natural beauty of our America can be enhanced. It can be done with a little give and take on the part of all segments of society.

The emphasis of preserving natural beauty should be immediately placed on educational programs to insure immediate results. Litter, trash, garbage, willful and malicious destruction and defacement of publicly owned and privately owned property are areas where natural beauty can be restored almost immediately. Let's all of us stop looking for scapegoats and roll up our sleeves and go to work. We are all responsible and we are all culpable. If we rebuild and preserve all the areas that have been mentioned in the hearings yesterday and this morning, it is going to cost huge sums of money, but it will be of no avail, unless you and I decide

to maintain this beauty by acts of cleanliness and respect each other's property—not just for today—but for all of the tomorrows to come.

We can stamp out ugliness, but please, let's not stamp out tax payers at the same time. Let's look in a mirror and the person that we see in the mirror is the person who should be doing his share of the job.

I want to compliment the chairman on his intention to recommend stronger antilittering laws.

Dr. DOROTHY A. MUNCY. I want to second a comment that was made by the gentleman from Santa Clara, Calif., and recommend that your Committee reconsider the emphasis that you are placing upon putting billboards into industrial road zones.

In my work as a consulting city planner I assist communities in upgrading development standards for industrial zones. I recommend to city councils and to county boards that they prohibit billboards in any industrial zones which will have freeway frontage.

To my private clients, those who are developing industrial parks, I make the same recommendation. Private industry has been seeking prestige sites fronting on major highways for more than a decade. Industrial management is spending extra millions for architecture and landscaping to build show-case plants on these prominent sites. Industry wants to present an attractive appearance and to be a good neighbor. This is an example where private investment can contribute to the appearance of the highway and to natural beauty in the community. But this private investment in handsome industrial buildings and in landscaping should be protected against billboards as neighbors. I hope you will reconsider the statements that appear to be accepted by all of you, and that your Committee will finally recommend that billboards be prohibited in industrial zones along freeways.

Mr. IVES. I wasn't aware we had reached any conclusions. If we have, as to final recommendations on billboards, I am not aware of it.

FRANCIS W. SARGENT. I am in charge of the highway program in our State. I am a queer sort of duck because since 1947 I have been in the conservation business. As a matter of fact, I was Director of the Outdoor Recreation Resources Review Commission and I think one of the most important things that has happened at this conference has been that the conservationists, and the highway people, and

the people related to highways and highway construction have gotten together. I disagree completely with the lady from Arizona who feels that the outdoor advertising people shouldn't be permitted to be here and participate. I think the very advantage of this meeting has been, and I think it was the plan of the President and the plan of Mr. Rockefeller, that there would be an opportunity for us all to look at this problem, together rather than to blindly oppose one another as we have over the years.

I personally feel that this is important. I think the President has said we should, in this country, learn to reason together, and this, I think, is what we are doing. So that I frankly think that it is important to have a representative of the Outdoor Advertising Association here as a participant. As a conservationist and as a highway commissioner, I feel that it is important that the highway people and the conservationists work together to solve this problem. This is the way we can move forward, and I think this is the intent of the conference.

Senator NEUBERGER. I would like to comment on what Mr. Sargent has said. I agree that this meeting would be useless if we didn't have opposition—if we were here just patting each other on the back.

I have had a lot of experience—I recently worked with the Surgeon General on a study of the connection between cigarette smoking and disease. It would be an absolutely futile report if we had not had representatives from the tobacco industry.

Along that line I was disappointed in one of our fellow panel members who represented the oil industry, which has a great deal of advertising, who only posed questions but didn't give us any answers.

I wish Mr. Shepard could be asked at this time to tell us how we are going to prevent the petroleum industry from raising billboards.

Mr. SHEPARD. Senator, I wish I knew. When one speaks of an industry in this country, this covers hundreds, or thousands, or tens of thousands of units. And to get a meeting of the minds of all of the elements in the industry in which I work is a very complicated and difficult task.

So I don't know what we are going to do to get a unified attitude by every element in the oil industry in the United States. It is just

too diverse and too complicated to expect a unified attitude on almost any subject.*

IRSTON R. BARNES. I would like to make a recommendation that follows up and goes a little beyond Mr. Hornbeck's criterion.

It seems to me we are faced with new dimensions of billboard blight. I am thinking particularly of billboards that are erected on high scaffolding above the treetops and of such size they are visible for a half a mile or a mile away.

Mr. Ives, I know you are familiar with that Howard Johnson sign that you can see in Stratford, crossing the Housatonic. I went to Williamsburg this weekend and saw signs that were as wide as the stage at treetop level, well beyond the right-of-way.

It seems to me that these are obvious attempts to appropriate values that have been created by public investment. They are a trespass on public property and I should like to recommend that Mr. Hornbeck's staff and Mr. Ramsey Clark's legal staff study this matter and discover if it isn't possible to apply the laws of trespass to those billboards that are visible from the highway. I don't care whether they are 1,000 feet away or 5,000 feet away. If they are built on a scale where they intrude on the highway, they are an attempt to appropriate and to destroy values which the taxpayer has created.

MARVIN DURNING. Contrary to Mr. Sargent whose remarks are in the tradition of good sportsmanship and contrary to the remarks of Mr. Hornbeck who would have us back up in the State of Washington from the regulation of billboards in commercial and industrial zones—for that would be the effect of his recommendation—and contrary to any disapproval of the lady from Phoenix, Ariz., I believe that you had a true statement of an honest indignation from the ladies of America. For a long time we have heard the kind of smooth talk that says, "We want to get along with you, take our billboards, we are for children, we are for beautiful, Join Seattle Beautiful, the Chamber of Commerce will finance it. See the pretty America? Nothing will happen." That's what we have heard in the State of Washington for a long, long time and Mr. Tocker undoubtedly is sincere in his belief that the outdoor advertising companies will cooperate. But what he proposes, for example, would mean that in Washington two-thirds of the mileage of the

*It was necessary because of other duties for Senator Neuberger to leave the meeting at this point.

interstate system would permit billboards—wherever existing boards are, wherever there is a sawmill, wherever the land is devoted to a commercial and industrial use. Most of our counties don't have zoning. The Outdoor Advertising Association poses nothing but the same old, "Let's not do anything now," and the gentleman from Illinois, "Keep Illinois Beautiful" "let's all talk together" just doesn't understand the indignation of Americans against being exploited forever.

BRYCE P. HOLCOMBE. I must say that this conference here today reminds me very much of the assemblies in the legislative halls beginning in 1956 and especially through 1958 when the government and the Congress attempted to do the job of regulating the advertising along the thoroughfares of this country. The same thing appeared and occurred before the U.S. Senate on numerous occasions, both in 1956 and 1958. It was apparently impossible to get aesthetic-minded people to ever agree on anything, and we here today have heard three definite positions discussed.

Now, the sign and pictorial painters of this country have never opposed regulating advertising, but we were in 1958 compelled to oppose certain legislation. The outcome of that legislation was in large measure the influence of the 16 million people in the American labor movement.

By all things that are holy, we are assembled here at the Chief Executive's call and the First Lady's call, and what do we do? We plan to take to him this afternoon a report from us who are high-minded and American-minded. If we take him an honest report, all that we will do is take him a shadow and a reflection of the public hearings held in the U.S. Senate in 1958.

Here this morning we have heard these same opinions. I am very sorry the Senator had to leave. The Senator made reference, or indicated that there is a bill—one which she spoke of very favorably—that is going to help cure these things. Then the gentleman from the Commerce Department says we would advocate this, we would advocate that, and a thousand feet between.

It is confusing. Do we have a legislative proposal or is the Department of Commerce going to make one? The opinions expressed here are exactly what we have had previously—and I for one hope that this panel, this conference, will take to President Johnson the truth.

MICHAEL R. FAGAN. I, too, would like to express a concern we have heard from the other two planners. The County of San Bernardino, largest in the United States, was zoned industrially, the entire 20,000 square miles in 1951. We now have four interstate freeways, each one of which has approximately 250 to 300 miles of industrially zoned land. I think that a recommendation from this conference should be to support and encourage local cities and counties to enforce the laws that they have enacted, particularly zoning laws. Without this support at the Federal level, the very fears that we have expressed—variances and waivers of one kind or another—will continue to occur. All plans proposed by this conference will be subverted because you will not have effectual support from your own local level. You cannot ignore local support and I strongly urge a recommendation from this conference to support local zoning control through enforcement.

JACK B. ROBERTSON. In 1961, Washington State passed a comprehensive law regulating billboards along the interstate highway throughout the full length without exception and on certain additional scenic highways, chiefly in the mountain passes. That law is the best law in the continental United States; it is excelled only by the law in Hawaii. Because of this our State has been singled out for reprisals both in the courts and legislature by the outdoor advertising industry and others.

I am shocked that any member of the panel would entertain recommending to the President a law which is weaker than some of the State laws already on the books.

Mr. IVES. Let me interrupt. How do you know what the panel is thinking of doing? This is twice that this has been discussed. I am sure that the panel doesn't even know themselves. So, I don't know how anybody can be shocked as to what the panel is thinking when the panel does not know what it is thinking itself.

Mr. ROBERTSON. In 1964, the Federal Government passed the Transportation Act. Its purpose was to establish a transportation policy.

I recommend that this panel recommend to the President that billboard control be instituted as a matter of policy on all rapid transit lines—otherwise we will have a continuation of the American highway disease along the rapid transit lines.

I have another recommendation. Many tourists are coming to America now. Our President has undertaken a large program of inducing foreign tourists to come to this country. Many don't understand our signs. But in other countries—in fact most—they use international symbols and colors to designate items along the road of interest to the traveling public.

Finally, I would like to see a show of hands of the people in the audience who believe there should be uniform roadside controls throughout the interstate highway.

GLESTER HINDS. Litterers raise objection everywhere. Therefore, motorists that litter the interstate highways should be find \$1,000 or made to do a cleanup job on the State highways to cover the amount.

Statements Submitted for the Record

DUDLEY C. BAYLISS. Admittedly, billboards in their present sizes are blotting out many stretches of otherwise pleasant roadside landscapes. And yet some of their messages are desirable to inform motorists of overnight accommodations and food and motor services.

The means of satisfying this need for information was an important objective in the 1949-51 joint National Park Service—Bureau of Public Roads Study of the Great River Road, extending some 3,500 miles on both sides of the Mississippi River from Canada to the Gulf of Mexico. The 1951 joint report of the two agencies recommended a parkway type of development based on improving existing highways generally to parkway standards with protected scenic corridors, access control and complementary facilities such as campgrounds, historic sites, etc.

The report describes and illustrates possible alternatives to billboards in the form of roadside information centers adjacent to, but screened from the highway with native plantings so that they are unobtrusive from the road.

Within these centers would be located a series of well-designed message boards, small in size, to be read from parked cars. They would carry listings of campgrounds, motels, hotels, restaurants, garages and other tourist services or entertainments in nearby communities. Near larger cities they could include manned information stations, telephones, restrooms, etc. All of these would be maintained by the advertisers and chambers of commerce. Racks would provide printed folders of various kinds.

At the present time, the team of engineers and landscape architects representing the Bureau of Public Roads and the National Park Service is including recommendations for these information stations for all 10 Mississippi Valley States in developing the Great River Road. We believe this form of visitor information could have general application on all Federal-aid highways and would provide a form of advertising more useful and more palatable than billboards.

The 1951 report referred to above is now being reprinted. It is entitled "Parkway for the Mississippi." State or other public agencies interested in a full description will soon be able to obtain copies of the report by writing to:

The Regional Engineer, Region 15
Bureau of Public Roads
North Glebe Road and Fairfax Drive
Arlington, Va.

DOROTHY W. ERSKINE. In the fight to preserve open space close to large cities, we desperately need some control or device stronger than local agricultural zoning to protect and preserve farmland. We need a new kind of State or Federal open space preservation zoning to implement better land use policies on both State and Federal level.

Why not authorize a study of the Greenbelt Act of 1947 of England (or Denmark or Holland)? Passed by an act of Parliament, this legislation has succeeded in England (where pressure of population on the land and city growth equals ours) in creating 10 national parks, 3 wildlife sanctuaries and is in the process of surrounding every large city with a permanent greenbelt of farmland. (London's greenbelt is 10 miles deep and exists now. Beyond the greenbelt, new growth is expressed in 20 new towns.)

In any case with greenbelt zoning the owner still retains title to his land and pays local taxes but the farming use of the land cannot be changed. The farmer can still sell his land (to another farmer) for any profit he can make but he cannot sell it to build subdivisions or a factory. All building permits must be reviewed by the local planning body to see that the permits conform to greenbelt use.

When the Act was passed, money was appropriated to recompense any owner of farmland who, in court action, could prove he had suffered injury by the imposition of this greenbelt zoning. In Denmark, 1,000 people appealed to the courts and compensation (like development rights) was paid.

By this same Town and Country Planning Act in England and other northern European countries, all outdoor advertising on rural routes was banned. That is why motoring is so delightful in these countries.

The Hawaiian Land Zoning that has just become law is very close to greenbelt zoning in Europe. One State has done it. Other States now have a precedent. Perhaps the Federal Government can tie some of its grants to the provision that States protect farmland open space by a new and stronger zoning with assessments and tax laws to conform to it.

MICHAEL R. FAGAN.* Under the title "Roadside Control" one could easily discuss litter or billboards. The latter consumed the greater amount of time on the panel discussion. The conference is to be commended and will enjoy my support for its firm position in this area.

However, I should clearly like to establish my opposition to corridor legislation. Many counties and States have adopted regulations which restrict property rights and freedom of land use development in different forms. The figure 500 feet in the case of San Bernardino County and 660 feet in the case of California have become standards with regard to the abolition and control of billboards.

The Federal Government's position that billboards and junkyards be similarly regulated to a point of 1,000 feet is only a further indication of a complete lack of understanding of the redundancy and arbitrariness of our regulations. Further, it is this type of regulation which has caused me to seriously question the over-all effect of this corridor legislation.

If it is the real purpose of natural beauty to be maintained and preserved, then we must recognize that the Lord did not arbitrarily terminate the beauty at 500 feet, 660 feet or 1,000 feet from the traveled way. The traveler will enjoy beauty because of its presence. The individual fulfillment will depend on his own tastes, but all of us will acknowledge that while laws are often based on one or more arbitrary conditions these indeed have created a dilemma. It has been suggested that in order to comply with the 660- and 1,000-foot setback, the average billboard character will have to be 8 feet in height, all of which will give birth to a sign which is not less than 40 feet by 100 feet. The relationship of a series of advertising signs of this dimension to the roadside and to the limitation of natural

*This is an extension of remarks made by Mr. Fagan during the panel discussion.

beauty are incompatible. In my opinion the only realistic alternative to corridor legislation is the use of land-use control through the realistic adoption of use classifications. In this area the Federal Government can provide immeasurable guidance, without losing local support which is so necessary for obtaining the final goals.

The President has called for positive action to correct the situation. He has not asked for an alternative—which allows for the construction of bigger signs—which set further from the highways—which will only further block our view of natural beauty.

CHARLES E. FRASER. The American recreational traveler suffers both from an excess of billboards advertising consumer products and an acute scarcity of useful and visible directional signs. He protests the billboards cluttering and spoiling the view. Yet, he becomes far more annoyed, when traveling a strange route, when he misses his turn off because the necessary direction sign is either too small and he fails to see it, or because his sought-for sign does not exist.

The swiftly traveling vacationer needs directional sign guidance in locating the facility he is seeking, whether it be a public or private recreational lake, public or private park or gardens, a restaurant, or a place of lodging. He gets such guidance effectively within the confines of our national parks and a few other large land tracts under unified control, but rarely elsewhere.

The vital role of directional signs in making recreational auto travel a pleasant occasion, and the negative effect of helter-skelter billboards is revealed in the results of the latest questionnaires of the American Automobile Association, dealing with major annoyances on the highway. These questionnaires were sent to the representative members of the 5.6 million AAA members.

Their most frequently mentioned complaints of major annoyances on the highway were as follows:

	<i>Percent</i>
1. Confusing or inadequate direction signs.....	62
2. Unclean restrooms.....	49
3. Traffic congestion in urban areas.....	33
4. Large trucks and buses.....	31
5. Billboards on scenic highways.....	30
6. Very large house trailers.....	19
7. Lack of service on freeways.....	15
8. Other annoyances.....	15

Even on a scenic highway, the pleasure traveler making his first trip definitely needs direction signs guiding him to the specific places of recreation, specific food and lodging, and specific historic sites planned as stopping points on his pleasure trip.

Billboards are not subject to any government control in the vicinity of the new resort of Hilton Head Island, yet, by joint action of the food and lodging industry on the island, and the South Carolina State Highway Department, locally sponsored billboards are rare, principally because neat, attractive, and highly visible clusters of uniform directional arrows have been placed on upright standards at all strategic intersections. These groups of arrows provide the traveler with the specific information he needs. These specific locator arrows eliminate the greatest single annoyance on the highway in the opinion of 62 percent of those who replied to the AAA questionnaire; namely, the problem of confusing or inadequate directional signs.

Since each local inn, motel, golf course, and like facility, through the cooperation of the South Carolina Highway Department and local interests, is assured space on sufficient sign standards for a uniform arrow giving the facility's name, and mileage directions to the traveler, the local commercial or business pressure for billboards and signs even in commercial areas is sharply reduced. Their complete elimination even in commercial areas is probable.

To make driving on scenic roads a pleasure, and to alert the motorist to location of the scenic roads, adequate provision should be made for the design of an approved uniform system of directional arrows to provide direction on scenic roads to the specific food, lodge, recreation, historical, and scenic spots serving, or sought by, the recreational traveler, identified by name, direction, and mileage.

The total number of such directional signs on the road or at an intersection should be subject to initial approval and submission to State authorities by the local governing body in each county in which the scenic road is located. To reduce the number of requests from private business interests for such directional arrows, they should be limited to facilities serving the basic needs of the recreational traveler, and further, a uniform charge should be levied, to both defray the cost of constructing and erecting the arrows, together with a supplemental license fee of \$25 or \$50 per directional arrow for the beautification fund.

Scenic highway regulations permitting and controlling such public and private informational signs, of uniform size and quality, could

sharply reduce the pressure for erection of billboards by travel-serving business in the existing commercial and industrial areas. They should be made exempt from the billboard regulations presented to Congress by President Johnson.

FRITHJOF M. LUNDE. It is generally accepted that there is a valid social basis for some forms of commercial roadside signs. The trouble with roadside signs is, among other things, a matter of indiscriminate location, bad architectural and graphic design, poor ideational content and bad upkeep.

This proposal would at the outset seek completely to bar general product advertising as a legitimate need in outdoor advertising on local roads. A distinction must be made, however, to permit product-sales or product-service establishments' signs so that local sales and service agencies can advertise their agency for the general product, viz, a tire dealer, or tractor service agency.

Permitted signs in the county or municipality adopting "Sign-Park Zoning" would have to demonstrate a pathfinding or directory aspect. A further distinction here would be that on-premises signs would be limited to product-sales or product-service or establishment-identifying signs but general advertising would be prohibited completely.

To deal with indiscriminate location of signs, it is proposed that sign-park zones be investigated as a concept. Under sign-park zoning, a general county or town directory in the form of multiple signboards concentrated in specially zoned areas would be mandatory after a terminal period for removal of existing signs elsewhere. The sign parks would be located within specified distances inward from the county or town line along the major thoroughfares and highways; commercial, off-premises signboards would be permitted nowhere else. The sign-park locations would be recommended by the planning agency, adopted as part of the zoning ordinance; approval of the planning board would be required and the zoning board of appeals or similar agencies would be the court-of-first-dispute.

Sign parks could be substantial commercial enterprises and serve many useful purposes as a town or county directory, unmanned in most localities—but permanently or seasonally manned as information centers, if required. They could be well designed by various of the design professionals, both as to their structures and graphics; they could list all the town's churches, service organizations, cultural entities, and commercial establishments, using existing and newly

designed identifying graphics such as service club crests, calliphon logotypes and symbol graphics; public accommodations could list their types of rooms; vacancy signs could be illuminated by remote leased-wire lines; rates could be posted if desired and pathfinder symbols could be indicated.

Elsewhere, pathfinder graphics could be permitted at or below the scale of highway traffic signs to direct travelers.

It is further suggested that some interested national organization sponsor a national competition to investigate the sign-park concept. Teams composed of attorneys, planners, architects, landscape architects, graphics artists or calligraphers, industrial designers, and others would compete to establish the legal description, land-planning aspects, and a design demonstration of the idea. The winning team or teams would then be commissioned to work with a municipality or county willing to undertake the enactment of enabling legislation and with an entrepreneur willing to undertake the first pilot project, to bring a demonstration of the idea to fruition.

The sponsoring organization could then evaluate the experience and disseminate the results to all interested parties.

JACK B. ROBERTSON.* This Nation is in the process of developing a rapid transit policy. Many students of transportation expect some of the major urban centers will start and substantially finish a rapid transit system within the next decade. We should take a lesson from the past and protect the roadsides of all surface rapid transit systems from visual blight such as billboards, junkyards, dumps, and automobile wrecking yards. Failure to do this will result in the same roadside blight we now find along our highways.

A program of positive protection of the roadsides of surface rapid transit systems should be a condition for Federal aid to planning and construction of rapid transit systems. This will protect the investment in the system, promote more pleasant travel, and prevent passengers from becoming compulsory viewers of advertising signs.

Many industrialized nations now convey information in the specific interest of the motoring public by official roadside signs using international travel symbols. This system now has had enough use and refinement that it can now be beneficially instituted in the United States; and this is recommended.

*This is an extension of remarks made by Mr. Robertson during the panel discussion.

Aside from the additional information that can be conveyed by such symbols, their use will help make highway travel more understandable, safe, and enjoyable for our foreign visitors and tourists. Also, roadside businesses will benefit from these symbols thus removing the desire for erection of roadside signs of their own.

J. LEWIS SCOTT. Highway billboards constitute a menace to our life, liberty, happiness, and sight. They should be classed as sight blight or air pollution.

A Federal standardization committee should be formed by law to limit and control all future sign sizes and locations. States could follow with similar laws. Committee members should be chosen from those in tune with architectural beauty in relation to natural beauty.

After proper research on the architectural relationship of signs to natural beauty, the committee should prepare and issue guidebooks or standardization criteria for the placement and erection of all signs. Its coverage should include any commercial or industrial sign on land, sea, or in the air that is to be erected by Federal, State, or local governments or by private industry.

Signs should be erected only on the advertiser's place of business and never on property leased for the sole purpose of advertising.

The committee should work with State, county, and local planning commissions to establish review boards.

W. R. SQUIRES, Jr. The Republic of Mexico has been operating for several years a border beautification program and such progress has been made in the appearance of their border areas, that the comparable locations in the United States are becoming quite shabby. I would suggest a U.S. border improvement program be considered by the President so that the entrances to our country will become and remain attractive and impressive.

Mrs. FRANK E. WILLIAMS, Sr. As a delegate from West Virginia to this conference, I wish to offer the following suggestion: There are many neglected areas and dilapidated buildings in full sight along our main highways. For those now existing, there is no way to compel the owners to remedy these conditions. Persuasion is of no avail. For the prevention of the continuation of such conditions, a new approach to the problem seems to be necessary.

The Federal Government has invested millions in building roads through the countryside, thereby increasing the value of the adjoin-

ing lands. The increase has been reflected in the price the owners ask for the land when a sale of such is in order. Because of the Federal Government's investment, there has been created somewhat of an economic interest in the land. To protect this interest and to further the beautification program, legislation seems necessary.

I recommend that steps be taken to enact a law by which a lien will be retained against any land 500 feet from the right-of-way of the highways. This lien will not be something new, as the Federal Government now uses such a procedure to secure the payment of income taxes due it. The local governing bodies use the same principle when they sell the entire property to secure the payment of local taxes. This would not be an unreasonable restriction of property rights as anyone who keeps his premises neat and clean would be in no danger from the lien. It is only those who are the despoilers of our natural beauty who would be penalized in this matter.

I strongly recommend that this phase of the program receive careful consideration.

THE FARM LANDSCAPE

10:30 a.m., Monday, May 24

The Chairman, Dr. GRAHAM. We have agreed to consider the farm landscape to be the nonurban land of the United States. This is a large segment of the country, perhaps some 90 percent of it. At least by some figures, the urban and related intensive uses of land are less than 3 percent of the total. Therefore, efforts to preserve and improve natural beauty and create a more attractive America must rely heavily on what is done in rural areas.

Most of the United States is privately owned. There are, of course, large acreages in public ownership of various types—Federal, State, county—but some three-fourths of our lands are in private hands.

That point should be kept in mind and it brings us very close to some of the responsibilities that Mrs. Johnson spoke about this morning.

Much of the ugliness in the rural landscape is not caused by those who live there. Other panels in this conference will deal with some of the worst despoilers of rural America: great concrete slab dams and power houses, water towers, oil tank farms, highways, billboards, overhead wires, auto junkyards, strip mining and pollution of streams by municipal, mine, and industrial wastes. Yet those who own and operate the land can also despoil, as through erosion, indiscriminate cutting and burning of timber, over-intensive grazing, and use of the land beyond its capabilities. Farm buildings and implements are often left to deteriorate.

On the other hand, when good husbandry is practiced, we usually

Members of the Panel on The Farm Landscape were Karl Belser, Frank Fraser Darling, Dr. Edward H. Graham (chairman), Marion S. Monk, Jr., Andrew J. W. Scheffey, Paul B. Sears, Robert Wenkam, and Donald A. Williams. Staff Associate was Lloyd Partain.

have a pleasing environment, rational land use and variety and beauty in the landscape.

This brings us to one of the points that might be considered, namely, the programs of cost-sharing, loans, credit, etc., which will permit the private owner and operator to undertake good land and water use practices and which in themselves may add to the beauty of the countryside.

We come also to the matters of control and the question of whether or not control is important or desirable in adding beauty to the countryside.

May I give you just one personal example: Where I live, we have a pond which for the last two years has been very muddy because of siltation from a subdivision above the place, and I apparently have no recourse. Should there be some kind of contingency placed upon this, if public aids of one sort or another are made available, or should controls be handled in some specific way?

It brings the whole question before us of better cooperation between those who plan urban lands and those who plan the rural lands of America, which, in many ways, is an extremely important point with which we may deal this morning. Instead of rigid controls there might be incentives of various kinds made available to the landowner and operator and the communities in rural America. These can be in the form of easements, development rights, tax advantages, and so forth.

Finally, our question involves the whole point of creating an appreciation for this human environment with which we are dealing in rural lands.

MR. WILLIAMS. If natural beauty in the vast expanse of rural America is going to be lasting and more than skin deep, its achievement must begin with the care and management of soil, water, and plant resources—the primary ingredients of natural beauty in the environment.

Natural beauty in the rural landscape is rarely an isolated product of a single special action. It is usually the result of man's activities as he manages farm, ranch, or forest land to make a living. Beauty, then, is often an important byproduct of measures that result simultaneously in bounty as well as beauty.

You all know what these measures are:
—The sweeping contours of stripcropped acres that tie down eroding hillsides.

—The grass and trees that blanket once-gullied fields or strip mined areas.

—The lakes and ponds that dot the countryside.

—The multiple-use forest growth that replaces naked earth.

As these and other measures improve his income, the landowner can afford farmstead improvements that result in further beautification.

This is not enough, I hasten to say, to meet all the objectives of the total program needed to enhance beauty throughout the land.

We still need the public attitudes and actions, by rural people, that will reject dirty streams, careless fire in woodlands, littered farmsteads.

We need to stimulate the desire for painted buildings, for grassed roadsides, for flowers, for proper junk and waste disposal on farms and in rural communities.

We need, too, greater appreciation and understanding by the city dweller, as a citizen and as a periodic rural visitor, of his part in maintaining beauty in the countryside.

Time will not permit exploring all the areas where the Department of Agriculture is redirecting and reinforcing its efforts in the field of natural beauty. Let me, however, mention just a few things we are doing and propose to do to see that beautification programs move forward actively in rural areas.

The Secretary of Agriculture has assigned to one agency the specific responsibility for coordinating all the department's efforts toward natural beauty. He has issued a major policy statement that makes natural beauty a clear-cut objective in USDA's varied programs of research and education, technical, credit and cost-sharing assistance.

It may be of interest, also, to report that before the end of this year, the department will begin work to update the National Inventory of Soil and Water Conservation Needs. This inventory, completed and published originally about five years ago, provided the first clear-cut picture of the total condition of our non-Federal land resources.

We found in this inventory, for example, that soil erosion was still a dominant problem on more than one-third of our cropland.

We found that nearly two-thirds of the Nation's cropland and more than half of the private forest and woodland needed conservation treatment.

We found that 25 million acres of land unsuited for cultivation were being cropped.

We found that about two-thirds of the Nation's 12,700 small watersheds needed project action beyond the ordinary means of individual landowners.

Updating this kind of information, as we are now preparing to do, will provide valuable help in planning and carrying out programs that affect natural beauty. Similar surveys have been made, or are underway, on the matter of timber resources in our national forests, and on the water problems of our major river basins. They provide the physical facts that tell us quite a bit about the status of natural beauty. They tell us also what we must do to put our own land into the condition that will make and keep it beautiful as well as productive.

There is yet another ingredient without which these rural beautification goals cannot be achieved. That ingredient is people.

Literally thousands of organizations and countless thousands of people in rural America are already at work to remove ugliness and to enhance beauty. To ignore that fact would be to do them a grave injustice, notwithstanding the large job ahead.

There is, however, a great and growing need for closer working relationships between these rural groups and the people in the city and county governments who are engaged in the kind of regional planning that results in a better ordered and more beautiful landscape.

Soil and water conservation districts and the small watershed projects, with which I am especially familiar, provide effective devices through which the several segments of a community can work together on common resource problems. We will help and encourage their leadership to give greater emphasis to natural beauty in their programs and to participate actively in comprehensive planning that will make rural-urban cooperation more effective.

The new Resource Conservation and Development projects, made possible by provisions of the Food and Agriculture Act of 1962, and carried out under provisions of the Soil Conservation Act of 1935 (Public Law 46), will provide an especially effective means of teamwork on a wide range of resource activities, including enhancement of natural beauty. These projects, because they embrace larger geographic areas than the other conservation mechanisms I have mentioned, necessarily involve a wider range of both rural and urban

sponsorship and cooperation. We are now helping 10 pilot projects to get underway and expect that others will be authorized this year.

The challenge and dimension of maintaining and improving natural beauty in rural America is very great. I trust this conference will result in clarification of the needs and in a determination on the part of all of us to move more rapidly toward meeting them.

Dr. SEARS. We underestimate the difficulty of our assignment, because it involves intangibles in two respects—beauty itself being one of the intangibles. And when it comes to getting things done, it is not the techniques that are important, but the attitude of people, the values they cherish. It is very interesting in my travels and field-work to see, wherever the landscape is in order, it is simply because people want it that way and wouldn't have it otherwise. We are dealing, then, with a very difficult recommendation.

As to the question of what is attractive, it is very hard to reach any conclusion, except this: I would suspect in most minds health is more attractive than a pathological condition. Ecologists can assay the relative health of a landscape, in terms of physical, chemical, and the biological processes. These involve balance, variety and resilience.

Now, where do we see this? In my judgment, I think that it is best exemplified not on a large mass production factory in the field, but rather where one has well-run, family-size farms. Taking into account the other social values, they also show this variety; they show this balance and the other attributes which seem to me to characterize the healthy landscape.

Now, I question the extent to which this sort of thing is being encouraged. Twenty-five years ago I had a talk with a very troubled man who was in charge of the extension work in a great State. He said, "I am in a tough spot. All these years I have been working to encourage the family farm. Now it seems the whole emphasis is changing and I am out to encourage these very large-scale, highly mechanized, and heavily capitalized operations."

And history in the past 25 years has shown what choice he has had to make.

I would like to suggest, at the very least, we would do a great deal to promote the attractiveness and the health of the rural landscape if we would not give undue advantages—competitive advantages—in the way of taxes and subsidies to these very large, highly mechanized mass production operations.

We certainly don't need them, because they are a source of surplus at this time and complicate the problem of the small operation.

To my mind, in any kind of a program to improve the appearance of the landscape, both rural and urban, land use plans are basic. I hope we will reach the condition in the States where no suburb or development will take place without reference to a sound land use plan.

I think most of you recall that shortly after World War I, Sir Dudley Stamp organized a land use survey of England, using secondary school students. I have been assured that the plan which was developed was a very important factor in feeding Great Britain when she was under blockade in the Second World War.

I think it is the height of folly to go ahead with developments, both rural and urban, while ignoring land use capability.

Another thing I would like to mention very briefly is the importance of local leadership and coordination of effort between rural and urban sources. There has been some apprehension because of reapportionment. We can take a bit of comfort there, I think, because, in my experience in the last 25 years, some of the most effective concern for the landscape, both rural and urban, has come from city people. So I don't think that aspect of the situation is hopeless.

Dr. DARLING. The agriculture of the past was diverse on the individual farms, because it had to supply the needs of food, plenishing and clothing a local population. This diversity was ecologically sound, though the process of reaching it was not thought out to that end.

Diversity makes pattern and variety of color at any moment of the year, which will live. Plants find tolerance in agriculturally diversified landscape and plagues and pests are much less likely to occur there.

I want to make four points in this presentation. This old-style diversity of landscape is disappearing as new lands develop which will do any one part of that agriculture better than an area which is not naturally fitted to it. Highways and fast trucking have been powerful factors in cutting down diversity and you can grow any single crop cheaper than you can produce it in small diverse farms. This trend isn't likely to be diverted, and the most hopeful action in monocultural districts would seem to be with the individual com-

panies who run these operations to see if they will attempt to provide a small amount of diversity on these large landscapes.

I would say second, that agricultural architecture is growing less pleasing and it is becoming more the processing plant of the large monocultural operation. Isolation of such plants in the countryside is not good enough reason for their being allowed to be bad architecture. Many industrial buildings have great beauty and agricultural ones should try to reach a pleasing standard.

I think architecture should be one of the first things taught to a child, not by telling him but by giving him architecturally sound bricks instead of just square blocks and letting him play with those.

Third, I feel that the policy of taxing land can be rather upside down. If you tax lands when development takes place, then you retard development insofar as somebody wishes to keep a farm as a farm. If you tax on potential, as is now general in the United States (but not over-all—there are counties that have changed in this respect,) it means that the farm between two subdivisions is squeezed out. It has to develop.

I feel that the tax on development, after development has taken place, would be a sounder process. I also, fourthly, would like to bring up the matter of zoning of private lands adjacent to large public land areas such as national parks and national forests. These lands rise in price as soon as these public areas are proclaimed and a very poor style of development can and does take place on the very periphery of large and beautiful wild lands.

I feel that zoning of a buffer area around these natural wild lands would help not only to beautify them, but would maintain the areas in the condition for which they were chosen.

I think at the moment that some of these things are politically impossible, but they should not be politically impractical within a fairly near future.

Mr. WENKAM. I am very pleased that Mr. Rockefeller emphasized in his opening remarks that we need not carry on philosophical speculation; that we are here not to just talk about natural beauty, but to offer concrete suggestions on how to keep what little we have left.

Even Hawaii, famed for its beauty, has not been spared the developer's axe of progress. It may seem unbelievable, considering the fact that Diamond Head is the prime symbol and scenic asset of Hawaii's \$320 million tourist industry, but there is under construc-

tion a concrete wall around this world-famed landmark. The wall of apartment hotels has progressed to the point where today Diamond Head cannot be seen at all from the main boulevard of Waikiki, and only occasionally, with effort, from Waikiki Beach.

You may wonder why the advertisements for Hawaii never reveal these buildings obstructing the view of Diamond Head. Well, I'm the photographer who has taken all the Hawaiian travel promotion pictures in the past few years, and I have specific instructions from the advertising agency not to show any buildings on Diamond Head. This is becoming increasingly difficult to do. I hope this conference will help make my job easier—and more honest.

Our problem is not just how to keep farms a beautiful part of our landscape; it may really be one of just how to keep our farms at all. The traditional farmland we remember as youngsters, the brightly painted silo, chickens running down the road, and checkerboard landscapes textured with crops rotated on small acreages, is slowly disappearing from the American scene. It is becoming economically impossible to earn a living on a family farm. It may be that if it were not for government price-support programs, what we speak of might not even exist except in isolated areas, in picture books, and on long Sunday drives.

Giant mechanized combines have turned agriculture into a manufacturing enterprise with much of its ugly manifestations. The small farm home and the family have been efficiently replaced in many areas by the migratory worker and the bracero.

Where the family farmer is holding his own in diversified agriculture, the flaying octopus of urban encroachment and a constantly expanding suburbia offer him a price for his land impossible to refuse. If he does resist, the tax assessor grabs him on the next time around.

Haphazard urban scatterization and accompanying freeways are destroying the beauty of agricultural production where it is most needed—on the fringe of our densely populated cities and towns, bursting at the seams with a population explosion.

The conservationist who opposes the subdivider and freeway building finds himself being accused by the politicians of stopping progress, of hindering economic development, and worst of all, denying property owners their constitutional rights.

Here a quiet revolution is taking place in America, a revolution against the traditional sanctity of private property, a revolution by

the middle class and intellectuals who are landowners themselves, and in times past the first to defend the privileges of the landlord. The revolt is fed by the excesses of shortsighted developers as they move across the farmscape, and nourished by an American public yearning for the open space that is increasingly seen only in Sierra Club coffee-table gift books.

The political implications of a democratic republic, whose people live by law and guarantee their freedoms through the courts, is manifested most dramatically when the people rebel at desecration of natural beauty they assumed to be public property. They are learning that property owners are resisting this assumption. Citizen groups who stand up to object are ruled out of order by planning commissions and struck down by the courts.

It is increasingly evident that if we are to permanently protect America's "farmscape" from unrestricted urban eroding of the countryside, we must take a new look at our traditional property rights in order to retain our individual freedoms in a growing Nation.

President Johnson expressed the need for action in the planning arena quite well in his state of the Union message:

We do not intend to live in the midst of abundance, isolated from neighbors and nature, confined by blighted cities and bleak suburbs. For over three centuries the beauty of America has sustained our spirit and enlarged our vision. We must act now to protect this heritage.

The now well-established concept of city zoning ordinances, tested and found constitutional in our courts, must be expanded to include the countryside and farmlands.

Hawaii's unique land use legislation providing for zoning of all the the land in the State, public and private, urban and farm, may well set an example for the Nation to follow or adopt. The findings and declaration of purpose as written in Hawaii's land use law, are very appropriately applied, not only to protect agricultural enterprise, but to effectively protect natural scenic resources as well.

All the land in the State is zoned within four land use districts—urban, rural, agricultural, and conservation.

The urban limits of each city and town is determined by the Land Use Commission, the county zoning ordinances of the affected community prevailing within the urban district.

Mixed farm and low density residential areas are placed in the rural district.

All agricultural activities, diversified farming, and ranching are in the agricultural district.

Conservation districts "include areas necessary for protecting watersheds and water sources; preserving scenic areas; providing park lands, wilderness and beach reserves . . . and other related activities."

It is noteworthy that the Land Use Commission's own regulations drawn up as criteria to determine permissible uses within agricultural districts, specifically provide for retention or rehabilitation of "sites of historic or scenic interest."

While the clear intent of the law is primarily to preserve agricultural lands from urban encroachment for economic reasons, the natural beauty of the farmscape is protected in a very practical manner. It is a simple step to further prescribe that preservation of our farmlands is also necessary to protect the natural growth of the farmscape.

It is time we recognize that natural beauty is public property and ban trespassing by vandals. Let us recognize the public rights to open space and natural beauty on the same legal level as private rights to private property.

Let us declare America's natural beauty—the land, the sea, and the sky—the property of all.

As we recognize the legal consequences of zoning to preserve natural beauty, we are going to be involved in considerable legislation and testing in the courts, but I think we must learn to realize that we must hold the land in safekeeping, whether we hold title or not. And the prospect of zoning by the States, through cooperation with the counties, may well be a way to protect our natural beauty and still protect our freedoms.

Mr. BELSER. I think we all have a pretty good idea of the objective. Our real concern relates to what we can do in the way of action on this problem. As a representative of local government on this panel, I would like to emphasize the role of local government, the action role which local government can assume.

I was interested to learn this morning that there are something over 3,000 counties and local governments—local rural governments—in the United States, and of this number less than 10 percent have any program for conservation or park and recreation development. This makes the remarks that I am going to make very per-

tinent, it seems to me, because if this is true, then there should be more action at the local governmental level.

What can local government actually do along this line? I think what we are asking for is a declaration on the part of local government that one of the objectives of local administration shall be to have natural beauty prevail. It seems to me this brings you right up against your own place of domicile. You may ask: How does our county corporation yard look? What does our county quarry look like? How is our county sewage plant built? How is our county waterworks built? Is it a thing of beauty or is it a disgrace?

It seems to me that only by a county taking the initiative of seeing to it that its own house is in order can it inspire anybody else to do anything about it.

Next, I think the county should provide a general plan and a part of that general plan should have a beauty aspect. It should be concerned with parks, open spaces, conservation, and that sort of thing.

Now, these suggestions I am making are provided for in most State enabling legislation, so that there is no real excuse for negligence in these regards.

If a plan is provided, it shouldn't be one that will be rolled up and placed on a shelf somewhere. It should be supported by a fiscal program for implementation. It should also be supported by a program of public education which indicates to the public at large that this is a program worthy to be supported by votes for bond issues.

Local government should also develop an organization within its structure for the administration of these kinds of facilities. And if this kind of plan is properly drawn, it will penetrate all segments of the county, or the local jurisdiction, and will also provide inspiration to others to do likewise, to improve their property. It is interesting to note that the public sector of the sphere, particularly in metropolitan areas, is an increasing one, and the amount of influence which it can bring to bear is tremendous.

Furthermore, each local government unit should have a public education policy, and it should overtly help and encourage citizen action along this line.

It should also consider that all of its public works, regardless of what they are, have a potential for multipurpose demonstration along the line of open space and resource conservation, and that this holds for flood control, freeways, and all kinds of action which local governments take constantly to improve the services of the community.

These can all be integrated into a beautification program which can make the community much more beneficial.

Dr. SCHEFFEY. I am going to approach the topic of this panel somewhat indirectly by looking at the land-grant State university system that exists in this country as an institutional force potentially qualified (and I would underscore this term "potentially") to deal with many future problems of landscape quality on a continuing basis.

This unique combination of research, teaching, and extension education, as we all know, has had a central thrust upon the entire agricultural enterprise in this country and has had a profound influence upon many aspects of resource development. Much of this past effort, however, has been directed toward counteracting the ill effects of unsound land use practices and resource development policy.

Current knowledge enables us now to foresee future changes with greater clarity, to anticipate what future needs are going to be, and to avoid many costly mistakes in the use of land. Mr. Rockefeller pointed out this morning that, over the next 40 years, we are going to practically rebuild large portions of this country. Here is an opportunity to avoid mistakes.

By focusing on landscape quality and design, a charge which would be wholly consistent with the historical mandate of the State university systems, these institutions could become powerful agents for generating workable concepts and practices of what I would refer to as environmental stewardship, and I would think this is really what this portion of the conference is about.

The challenges of the new conservation now demand such a broadening of traditional areas of concern in each of the States. This university system constitutes a potentially vital focal point for gathering new knowledge about landscape problems, for producing a professional corps capable of utilizing this knowledge, and for creating the organizational innovations necessary for applying it to the land. I think this is what we have been hearing about during the last two presentations. This system could become a viable framework for implementing many of the proposals stemming from this conference, transmitting them into action programs at State and local levels.

These institutions could provide the institutional support necessary for formulating forward-looking landscape policies embracing

agriculture and other forms of resource use and involving citizens and business interests as well as the governmental agencies.

Basic adjustments, however, are going to be needed if these institutions are to respond fully to this challenge. The transition will not be automatic or easy. It is going to require more than the addition of some new programs and the retraining of existing personnel. Within many disciplines there will have to be a redirection of academic and research emphasis, one that recognizes beauty and natural amenities as integral and legitimate products of the land, equal in importance to the more traditional resource commodities and services. Areas of responsibility must be extended to include urban and community interests in the land.

In the final analysis, it seems that the citizen, as well as the landowner and the landscape shapers (both the public and the private ones) must begin to participate more actively in determining standards of quality and beauty in communities and on landscapes throughout the Nation. As Professor Sears pointed out, this is basically a question of attitudes and values. The basic need is to increase the citizen's sense of environmental awareness, to promote keener sensitivity to the changes that are taking place and fuller understanding of the possibilities for alternative forms of development.

All of this is going to demand a sustained educational effort. It is a task which the State university systems adapted to local political and ecological conditions and with a tradition of service to the larger statewide community, are particularly qualified to accept.

They can provide continuity and integration for other public programs and they can participate in the training of future landscape managers.

Therefore, in conclusion, I would suggest that we look to the State universities to assume much of the leadership in providing followup action to many of the proposals stemming from this conference. These institutions might well be encouraged to sponsor similar statewide natural beauty gatherings, applying the findings of this conference to localized situations. And finally, we might consider the establishment in several parts of the country, in connection with several major institutions, of a series of pilot demonstration programs in landscape planning on a regional basis, designed to undertake research, to promote more imaginative approaches to public education and community involvement in these problems,

and to work toward the formulation of workable landscape policies.

What I am suggesting, in short, is that we think about the development of a universitywide system of extension education, focused on problems of landscape quality and design.

Mr. MONK. The restoration, the enhancement, and the maintenance of natural beauty as an integral element or characteristic of the rural landscape are desirable goals, capable of accomplishment. In this presentation, the farmstead will be regarded as part of the landscape.

There are a number of prevailing reasons why significantly large tracts of the rural landscape are either deteriorating in appearance or are failing to make a reasonable contribution to a countryside that ought to be notable for its natural beauty. It is useful to identify some of the chief causes of ugliness, monotony, and drabness as a prerequisite to recommending solutions.

Beauty rarely exists in the midst of poverty. For the millions of rural people trying to get along with marginal income or less, matters of beauty do not get a high priority. First claims on the funds and attention of low-income families are the size of the next crop, payment of taxes, payment on the interest and principal of loans, clothing and education for the children, bread to eat, and a roof overhead. Low farm income is probably the number one enemy of natural beauty in rural America.

Investments in beauty are investments in the future. There is little incentive for farm families to invest in the appearance of farmsteads or farms when foreclosures or sale are just around the corner. Thousands of farm families are leaving the farm each year, and this instability operates against attention to beauty in the countryside.

Even where there is stability and a reasonable income, attention to the appearance of the farmstead and the landscape has suffered from apathy or misguided notions that investments in appearance are either superficial, vain, or improvident. In too many communities, a pleasing environment has not been given the status of an acceptable community or individual objective. In these circumstances, there is neither organization nor attitude to identify aspects of beauty and foster them.

There is an increasing area of abandoned and little-used land in rural America, as agricultural production efficiency operates to constrict the acreage devoted to crops and livestock, and as small farms are sold or retired from production. Increasing thousands of acres

are growing up in weeds, brush, untended grass, and scrub trees. More often than not, these lands become an eyesore.

In addition to untended idle land there is eroded land—land torn with gullies by excessive or misguided use, stripped of its productive topsoil, and laid bare by wind and water. Whether as forlorn remnants of former mistakes, or the angry evidence of damage now progressively underway, these marks of waste are, to say the very least, unsatisfying.

Neither beauty nor attention to it are automatic. Heretofore there has been little realistic incentive to bring action in this direction. As a government or community purpose, it has not often ranked high as a claimant for time, money, informational help, or technical assistance.

If these are, indeed, some of the key reasons for cancer spots of ugliness, drabness, and inattention to beauty in the rural landscape, then some of the avenues to improvement become evident.

We need to continue our exploration in the United States for ways to improve the income of disadvantaged rural landowners and operators.

We need to continue our concern for farm family stability.

We need a program purposefully focused on the use of land within its basic capabilities and the treatment of land according to its needs for protection and waste. Eligible use, in this program, should not be confined to commodity production.

We need a program of technical assistance, cost-sharing, and perhaps loans to help convert abandoned, idle, or little-used farmland from the ugliness of weed and brush infestation to some constructive uses—whether these be for wildlife, nature trails, water development, or purely aesthetic enjoyment.

We need to step up conservation and resource development work on the operating farms and ranches of the country—not only to heal the scars of past carelessness and exploitation, such as gullies, muddy streams, and eroded fields, but to create the fact as well as the appearance of orderly cooperation by men with nature.

We need to establish the restoration and enhancement of natural beauty as an acceptable, important goal of the people of the country.

Government agency personnel working in the countryside must be authorized and directed to assist, through their regular program functions, toward attainment of the goal.

Progress will require the continuing support and participation of a variety of local organizations. Important among these are the 3,000 soil and water conservation districts organized under State laws in the 50 States, Puerto Rico, and the Virgin Islands. They are operated by local people and concern themselves with the conservation, development, and management of land, water, and related natural resources. These local subdivisions of State government cover more than 95 percent of all the privately owned lands of the Nation. It is through them that the Department of Agriculture provides technical and other assistance to more than two million land-owners and operators and to thousands of communities.

Consideration should be given to a program designed to improve the appearance of farmlands and farmsteads—as well as the rights-of-way adjoining the Nation's main-travelled highways. Cost-sharing and technical assistance would be important for progress on these properties.

Consideration should also be given to the development of potentially pleasing vistas of unique or particularly pleasing natural beauty, extending well beyond the highway rights-of-way and the immediately adjoining farmlands. Attention to these vistas, especially rolling lands that have gone out of production or are scheduled for retirement from cultivation, could be most rewarding.

Most important, probably, is recognition that land and water are basic elements in the restoration and enhancement of natural beauty in the countryside. They are the source of the wealth that makes improvement of the farmstead possible. And they are, in themselves, the very substance of the rural landscape demanding attention.

Questions and Discussion

STEPHEN COLBY. I would like to make a statement in regard to the Resource Conservation and Development Programs of the Soil Conservation Service, in particular, and to all governmental programs in general. I am on the Southern Illinois University Advisory Committee to the Shawnee District R.C. & D. program of the S.C.S. I find the Shawnee District, as organized by the S.C.S., divides the Greater Egypt Regional Planning Commission area in half which creates potential problems by causing cross-currents that could impair the effect of both programs.

All governmental programs should recognize the basic units with which they have to deal, not only in terms of the basic natural resources, but the human resources and governmental resources as well.

Today's technology alleviates the necessity for contemplating natural resource base as the principle consideration when undertaking programs of economic rehabilitation. If a group of people consider themselves to be an economic-political unity, this must be the prime consideration of future development, either as a part of a larger unit, or as an autonomous unit, but never divided.

HAROLD GILLIAM. I would like to suggest, for the consideration of the panel, some possible recommendations for Federal policy to encourage the maintenance of farmland as open space. One would be the possibility of income tax concessions to farmers, or advantages to farmers and owners of open space, who maintain their land as open space.

Another would be the possibility of Federal grants to local governments as compensation for revenue lost when they assess land for rural rather than urban purposes. If farmland in a suburban area is assessed for its actual use rather than its potential use, as one of the speakers mentioned, the local governments will lose revenue.

Maybe there could be a Federal program of grants to local governments to make up that lost money.

Another one would be the possibility that open space grants could be made to local governments which have a policy of zoning rural land, as Mr. Wenkam stated is done in Hawaii. These could be made either under existing programs, such as the Land and Water Conservation Fund or the HHFA programs, or under some new type of program.

Here are some procedures with which the Federal government might encourage local governments to maintain farmland as open space.

Dr. CLARENCE COTTAM. It seems to me that there are two things that are left out of the program, as I heard it from the distinguished panelists. When the big problem is to make money out of the land that is incapable of agriculture, more effort should be made to eliminate the poor land that Mr. Williams is talking about. We have a lot of it. There need to be capability tests made of it. There needs to be elimination of agriculturally unproductive land so the land can be put into other and better uses.

We need to put some sort of a muzzle on one or two government agencies that try to rule independently. When you have a beautiful bluebonnet patch, we shouldn't let some individual come along with pesticides or herbicides or with a mower and put through a cutting at the height of the growing season.

There are a few things of that sort in which there ought to be a greater degree of coordination between Federal and State programs. We need to increase our educational program.

DANA L. ABELL. I am a newcomer to the Appalachian region, having now a glorious time exploring the Blue Ridge parks and parkways. And I am most impressed not by the Ridge itself, but by the surrounding lands and the beautiful rural area there.

It has occurred to me that some of these areas are not long for this world as far as beauty is concerned. And the idea came to me that we should be thinking in terms of natural rural scenic preservation districts that might subsidize lands which are incapable of maintaining agricultural production, but are important remnants of a historical past and need preservation. These would be areas established around the regions that we are preserving in their natural state. They would be rural lands of great beauty, which are as important to our scenic heritage as the national parks.

DAVID K. HARTLEY. I would like to make the point that the only agency capable of really looking at all land in a State would appear to be a State agency either a State planning agency or some other kind of agency, that is concerned with land use planning.

The point was made that statewide land use planning is necessary. There is never going to be a large-scale conservation program without the support from the central city people. And if conservation is to be a legitimate land use that can hold its own, it must be balanced off against other land uses. Therefore, it would seem to me that this conference could well go on record as encouraging sound land use planning in every State. This is the biggest lack now in this country's planning structure.

F. J. MACDONALD. Is there any way for this conference to go on record encouraging the Federal Government to get some sort of a mandate to the universities and to the soil and water people to start a series of clinics? These could be advertised heavily and well attended to help people in the areas that we are speaking of.

We are interested in the educational end of this thing, and we would like to get people started in this direction. We know the universities could hold these clinics if the Federal Government would encourage them and might even send down a mandate to this effect.

The soil and water people are already working in this area. Could we get them to hold clinics and invite men who are interested?

Dr. BOOKER WHATLEY. I would like to direct my question to Professor Scheffey. When you spoke of training landscape managers, what level of training did you have in mind, degree-type training or not?

Dr. SCHEFFEY. I didn't specify whether this is professional training or post-professional training. I think both are needed.

I think, as we move more and more into this area of over-all landscape manipulation, we have to get closer cooperation on the part of a number of disciplines and departments.

I think that this has to be encouraged at the university and graduate level. At the same time there is a need to follow up on the suggestion that was just made for some sort of clinic or short course or whatever, for what I would refer to as the landscape shapers. These could be road agencies, public works people, or it could be private developers, in order to give them some understanding and involvement in the sorts of things that are being talked about here, specifically, the role of aesthetics and other forms of developments.

I would think this should take place both at the professional academic level, and also in the area of short courses and clinics. That is a good suggestion that I hadn't thought about.

Dr. JOSEPH SHOMON. One of the things I would like to offer as a comment and as a concrete proposal to this group is that we consider islands of green around all of our major 2,000 cities around the United States and that we convert these islands of green to educational, scientific and aesthetic and cultural purposes by making them into the community nature education centers that we so badly need around America.

All of you here probably know that a new film has just been released by the U.S. Forest Service in cooperation with the Audubon Society. It is entitled "Islands of Green." If you want to know how to have one of these centers in your community, be sure to get a copy of this film. It has the highest level of government and private sector conservation endorsement in this country.

KENNETH MORGAN. I have very much enjoyed the reports that have been made by this panel and I don't know that I can add much to them. I think the problems mentioned by Professor Scheffey, and Mr. Monk of Louisiana, have been encountered in South Dakota. We are talking about a big country. We can talk about a big program. I can see now that there are some things that were mentioned here that will work in South Dakota, and I think your suggestions, Prof. Scheffey, that we proceed through the universities and mechanical arts colleges, would be of great help, because we already have these established in our State. We also have established something which we haven't yet touched upon, but I am sure we are all familiar with, and that is the forest range program. We are an agricultural State. The river forms a natural barrier extending north and south. The West River country is cattle, while the East River is mainly large ranch country and smaller farm units. In the West River primarily, I think, the beautification program can be carried on to a great extent through the Interior Department and through the forestry range program which has to do with our cattle.

DAVID BROWER. I wonder if your panel, Mr. Chairman, might recommend something like these four points in your final recommendations to the President.

1. That means be found to seek standing in the courts for rural beauty, something that would limit the corporate right to seize and confiscate beautiful landscape.

2. That means be found to establish national and State reservations of Class 1 lands, perhaps financed out of taxes on overcrowded development, on capital gains, on landowners—a tax on ugliness.

3. That commissions be established that would devote themselves to the restoration of diversity in the countryside. These commissions would seek to carry on advanced studies of the importance of such diversity.

4. That means be found by every commission to guard against the ominous forecasts that we are confronted with, predictions, for example, which, if they are repeated over and over again, bring about their own fulfillment, like the regretful or boastful prediction that the population will double in 40 years.

LEONARD HALL. Mr. Williams, I go back to the early days of the Federal Soil Conservation Agency. Your agency was the one

that originated the idea of land capability, of analyzing it and using it according to its capabilities.

I write for an audience of about 350,000 people a week. The greatest point of ignorance that comes through to me from these people is their ignorance of land capability. They say, "Here is all this land. Use it." And they believe you can use it any way you want to. We know that is not true. That is part of the educational job in this whole picture. Mr. Sears talked about the steady tendency toward bigger land units. I believe we have got to get back to an ethical and moral attitude toward land use and say "this is where we have to go, not because science and technology and government subsidies say we are going there, but because it is right." There is a lot of big machinery used in agriculture today because it is subsidized and not because it is efficient on the land. We have to say this is where American agriculture should go in order to build a better America, and then we will be able to plan for the right kind of family farms and keep them. And we were talking about soil districts. I drive 40,000 miles a year through them and sometimes I will drive all day with the stink of the defoliant in my nostrils or along drainage ditches, where dead fish float on the surface killed by herbicides and insecticides.

These are tremendous problems in natural beauty. I would like to make a tiny comment on Dr. Darling's statement. It seems to me that the education of our children in good taste, and this is the thing you were talking about, is tremendously important. You cannot do away with the slum landscape when you have slum-minded people. Maybe the ones that are here now are too old to change, but we certainly have to change their children.

Dr. E. W. MUELLER. I appreciate the comments that have been made here calling for new approaches which will achieve some of the goals that we have for beauty in rural America.

But I suggest that we also take a good, hard look at the structure that we now already have. Where we are not doing a good job, let's strengthen those structures.

For example, the soil conservation districts reach the private land-owner, and reaching the private land-owner, they can do a lot to help beautify private land but the landowner needs technical advice to be able to do a wise job and a good job in planning his land use. Therefore, any effort to charge a user fee for these technical services that are made available at present without cost would be a step in a back-

ward direction. I would like to suggest to the panel that they make a strong recommendation that any user fee charged for technical services made available to private landowners be seriously questioned. We should make this technical service available to farmers without cost.

PHILLIP ALAMPI. We have in New Jersey the highest land tax in the Nation. In order to assess farmland on an agricultural use basis rather than on the basis of nearby industrial land values, we had to seek a public referendum to revise constitutional provisions relating to property assessment. This we did in the Garden State with a program identified not only as a project to preserve agriculture but also to "Save Open Spaces". The referendum was approved by a majority of 3 to 1, and now qualified farmers who have 5 acres or more are taxed on the capacity of that land to produce agricultural crops and not on the basis of adjacent industrialized or residential land areas.

In considering the difficulty of preserving agriculture in highly urbanized New Jersey, I think this is a lesson for other States concerned with the loss of farmland. It also presents an opportunity to the fellow who would like to invest in farmland and make a profit after paying a rollback penalty. Such a three-year rollback tax must be paid when the land is sold for a higher use. To a degree, this discourages the speculator from buying up a lot of farmland. Our experience in New Jersey may offer a challenge to residents of other States who would like to maintain, at least for a period, more open space as an asset to our urbanized society.

Dr. JOHN CAREW. I wish to respond to those delegates who imply that the preservation of the small family farm and less modern farming methods are valid means of maintaining the beauty of our farm landscape. Natural beauty and efficiency in commercial agriculture are totally compatible. Large size, mechanization, crop specialization and the use of pesticides are generally synonymous with farming efficiency. These characteristics are no more antibeauty than smallness, hand labor, crop diversity, and an abundance of weeds, insects, and diseases. There can be as much beauty in a 500-acre apple orchard tilled and managed with modern equipment and free of weeds, worms, and scab as there is in a 20-tree planting, pruned by hand and unprotected from a host of pests. There can be as much beauty in a modern well-landscaped and well-designed food processing plant as there is in a tiny cider press nestled in the woods.

Beauty should never be equated with farm size or modernization. If we are to continue the progress that has characterized American agriculture, we must avoid any expressed or implied conflict between natural beauty and the most efficient production of food and fiber. Our land must be a resource of economic strength as well as of beauty.

Dr. SEARS. I would certainly concede that the workable size of a family unit has been greatly increased. My point is to relieve it from unfair and burdensome competition through the very extensive operations which are receiving an undue share of subsidy and are often used by people who have capital from other sources, to write off their tax loss. That is my point.

HERSCHEL NEWSOM. I would like to follow up a bit on Mr. Alampi's remarks about the New Jersey experience. I suggest that it would be well for the staff and so-called faculty of this conference, to provide some sort of an indication or report as to similar steps that may have been taken in other States.

All of us are confronting a vigorous search for new revenue within our respective States that is even worse than the search for revenue to finance the Federal Government, and we are going to have to have it to meet these financial requirements.

How do we do it without imposing a penalty on the fellow that does beautify his section of rural America? Or perhaps from the nonrural point of view we might find that the industrialist who beautifies his own industrial site may be suffering a penalty that society cannot afford to have him suffer. I am only trying to say, Mr. Chairman, that somehow or other, if we might use this White House conference as a means of discovering what has been done, we might eliminate some research work on the part of those of us who are trying to help our respective counterparts out across the various States.

JAMES WILSON. I would like to suggest that I was a little shook up, actually, when I started to come here, by a comment from someone who said, "Are you going to participate in another Federal boondoggle?" The thought had never crossed my mind that some people would be suspicious of the motives of the people gathering in Washington. But they are. I would like to suggest that a Federal hierarchy is not necessary in this case, that we have existing governmental groups at State and county levels that can accomplish this

job, and we have active, aggressive individual civic groups that can accomplish the job.

What we really need is Federal guidance, stimulation, and education. I particularly like Professor Scheffey's idea for using the land grant colleges, the State universities, as a gathering place for the exchange of ideas.

I would like to leave this thought with you. I see it working in Santa Clara County, where small county units and cities are accomplishing a great amount of beauty and are preserving a fair amount of the countryside in the fastest-growing county in the United States.

GEORGE SELKE. I wish to comment on the fact that most of the people of the United States will wish to see the 97 percent non-urban part of the United States that we are planning to make and keep beautiful. I am concerned about the way in which they get to the attractive places and what they do while there. I do not wish replicas of our old railroad depot areas to develop around our bus stations and airports or the sides of the highways to look like railtrack ribbons. I also object to unsightly over-used campsites and to lovely mountain meadows ruined by picketed packtrain horses.

We will need to pay more attention to the management of the people who go to see our lovely places. The beauty that we have or develop must be protected.

WILLIAM GARNETT. It seems to me the greatest area for action that can come from the greatest gathering of knowledge that you people already have is the field of education to all levels of people.

I think we can achieve, as was suggested from the panel, the desire for beauty through inspiration. I am tired of seeing examples of blight and the talk of litter. I think we need to put the emphasis on the positive. I think this education should be a national program aimed from the elementary school level forward, right up through and including a compulsory training on the part of all government agencies that have projects of large scope. I am particularly aware of this, having recently worked quite intensively on a program with the Army Corps of Engineers. These men are fine engineers. They have had fine training. And they do fine engineering projects. But they do not comprehend what we are talking about when we talk about aesthetics and good design.

They could not comprehend this because they have not had the training or the exposure. They cannot comprehend it because

they have been limited by the rules and regulations of their organization. They cannot devote money in their budget nor do they have the proper personnel to consider it. I feel we are now lacking a proper educational program. Visual experiences, written experiences, through our schools, will create a new generation that will be aware of it.

I feel the people who are in the underprivileged areas that were mentioned earlier, if given the opportunity to see what beauty is in other areas, will make an effort to change that situation in their own area.

I would like to direct a question to Professor Scheffey. Have you given any thought how the pilot study that you have suggested could be implemented? I have been proposing such a study on the West Coast. How would you implement such a program, recognizing that it should be done in each area? What are the mechanics of getting something started?

Dr. SCHEFFEY. I haven't given any thought to specifics. I think this would depend upon the area in which it is going on. What we might do in New England would be vastly different than what would take place in the Southeast or Southwest.

Mrs. NATHANIEL A. OWINGS. I want to make a comment. I believe a farm landscape is a dead landscape without life, without wildlife and birds. And the new elements affecting those two are the use, and overuse, and misuse of pesticides.

I am one of many who hope that we can seek out and encourage safer pest control methods and further restraint in their application.

Now, one other comment I have to make, more related to my Park Commission work, and that is a question directed to Dr. Darling. How might we control the use of peripheral lands around State and national parks? You spoke about this misuse of the lands on the edges of our parks, which we are all aware of. I am wondering if you are thinking of a kind of instant zoning when the park is acquired or are you thinking of an arm of the government moving in?

This is something that we have not found an answer to and I, therefore, would ask what you had in mind.

Dr. DARLING. At the moment, I believe you could not act very much above the county level. Zoning in this country is at the county level. But one would hope that it would reach the State level, that the use of lands could be guided at least. What is upsetting, I think,

is when you have a national park and you get an excrescence of cheap amusement facilities, backed up against the gateway of the park, one you can see for perhaps 30 or 40 miles. I can think of one such place right now.

Whether you can get action at anything higher than the county level, I don't know. This is why I said what is politically impossible at the moment should be politically practicable in the relatively near future.

Mrs. MORSE ERSKINE. I speak definitely from the point of view of a frustrated citizen. I want to know why we shouldn't head into the question that has been so successful in the northern countries of Europe, the question of greenbelt zoning. In this, agricultural zoning is placed upon areas around cities that should be preserved for that use alone. The owners are left in possession of the land, but they are compensated if necessary. It is a zoning that cannot come from a local level. It must come from either Congress or State. Without that, citizens at my level are perfectly helpless to fight all sorts of decisions that are made in the belief that urban use is a higher use and agricultural lands must give way to it.

I don't have to go into it. You know far more about it than I do. This is help for the citizens.

Mrs. J. LEWIS SCOTT. The colleges and universities with strong departments in ecology should be consulted on natural resource management. Diversity of vegetation and animals will help insure a beautiful landscape. Pesticides should be biologically selective without any food-chain or environmental damage.

Dr. GRAHAM. Someone asked for an answer to the previous question. The question, it seemed to me, was whether or not local zoning, which means in this case county zoning, is sufficient, whether or not we don't need, in fact, statewide zoning, or possibly some kind of Federal zoning.

As I understand it, there are very few counties actually in the United States that have zoning ordinances. Hawaii, I suppose, is the only State that has statewide zoning. I am not sure there is Federal zoning, but this is something that we don't desire; we can handle it some other way. Am I not right?

Dr. DARLING. You spoke of northwest Europe. In Britain we had the Town and County Planning Act of 1947, which froze land values at the 1939 levels. This was a very good brake on develop-

ment, but the speculative element in recent years has very greatly whittled away our Town and County Planning Act. I doubt whether you are ready for freezing land values at some point.

I wasn't ready when that plan came out. But the older I have grown, the more I feel that it is right, that you will have finally to freeze land values if you are not going to get completely uncoordinated development.

STATEMENTS SUBMITTED FOR THE RECORD

Mrs. VELMA GOOD. Many worthwhile comments were made regarding the family farm in the panel on the Farm Landscape.

The family farmer is concerned about keeping a healthy landscape, as Mr. Sears mentioned. He is interested because his greatest desire is to pass on his land, well preserved, to his son and future generations. To the best of his ability he is efficient, follows soil conservation practices, controls weeds, fertilizes, etc.

It is imperative that we keep this type of agriculture in our economy at whatever cost. The question I had hoped to ask was, "Would it be possible to include in your report a statement favoring the family farm pattern of agriculture?"

RICHARD H. GOODWIN. We need some new thinking and planning to exploit the mutual and compatible interests of the city dweller who wishes to own land and enjoy a country landscape as a weekend and vacation place, and the farmer. In a system of private enterprise, plans might be developed for these two types of landowners to share the land—the commuter providing some of the funds to support the tax base and the activities required to preserve the aesthetic qualities of the landscape; the farmer providing the labor and equipment for the farming and maintenance operation while deriving some financial support from the commuter.

An example might be given in the case of a group of small country-estate owners needing the services of a farmer to cut hay and provide suitable livestock to maintain pastures. These people could more than cover the tax costs of maintaining the land as open space.

DAVID K. HARTLEY.* Considerable mention was made in the panel on the Farm Landscape and in other panels of the conference

*This is an extension of remarks made by Mr. Hartley during the panel discussion.

about the importance of statewide comprehensive land use planning as a factor in preserving open space and natural beauty in the rural landscape.

The State planning agency is the only unit that looks at all the land—urban, suburban, and rural. Metropolitan planning agencies are confined to the area that is presently urbanized. It is the area outside the suburban fringe, where growth pressures will be experienced in coming decades, that needs attention now—before the deluge of new subdivisions, expressways, industrial parks, and shopping centers descends. Rural county governments are most often ill-equipped to anticipate this growth; in most cases they do not have the facts necessary to resist pressures of large developers. These facts are developed by the planning process—through the rigorous research and design process by which competing land uses are balanced so that the whole landscape contains each legitimate activity in its rightful place. In the absence of effective rural regional planning in most of the Nation, planning in what has been called “exurbia” or the rural fringe is done primarily by the State planning agency.

Another point is that conservation, agriculture, and recreation are indeed becoming recognized as legitimate uses of land, entitled to equality in the comprehensive plans. However, this puts conservation in competition with other uses—residential, industrial, and commercial—which traditionally have been considered higher uses in direct economic return both to the landowner and to the community as a whole. Criteria other than strict economic costs and benefits must be applied to justify reserving large tracts of land for those uses which are so important to human existence. This justification can never come without cooperation between central city interests and the farm areas. City residents benefit from a more beautiful landscape just as much as those fortunate enough to live in daily contact with nature. And therefore city support is necessary in securing land for these purposes. The State comprehensive planning process is the mechanism for assuring that all uses of land receive due consideration in future growth patterns.

Conversely, it behooves conservationists and persons concerned with recreation to insist on proper recognition for these important uses. State planning agencies should retain staff members with experience and competence in resources planning. Advisory committees of knowledgeable citizens should review plans while they are being made, not after they are published and all the decisions made. Conservationists should impose themselves into the planning process,

because these plans are developed for political leaders who make decisions about future development patterns.

Thus, the White House Conference on Natural Beauty does well in recommending support of statewide comprehensive plans. This is a key factor in lessening despoilation of the landscape.

Mrs. DOROTHY L. MOORE. No mention was made of the large number (and acreage) of recently operated farms which have been bought for residential use, sometimes divided, sometimes as a whole. Though these come under no farm definition, unless operational, they are recognized by the Soil Conservation Service as an important field for assistance in conservation measures. In many districts of the northeast, and quite possibly in other areas of population concentration, cooperators of this category outnumber those who are commercial farmers. If these former farm fields grow up to brush and scrub trees, they destroy the qualities of the farm landscape, which may have been a principal visual asset of the area. In any case, growth of trees will obliterate the views which were formerly made available with a foreground of crop patterns and green forage.

The problem here is to help the new owners keep their fields in good shape. In addition to education, joint or district ownership of large rotary-type mowers is the only means at reasonable cost. In one area of northern Vermont (Lamoille County) the Future Farmers of America have bought and made available by the hour, with an operator, a six-foot rotary and tractor. This machine has reclaimed hundreds of acres that were past ordinary haying, making the landscape more sightly and preserving the distant views of valley and mountain for which the area had become famous.

Mrs. NATHANIEL OWINGS.* There was a time, not long ago, when land husbandry was part of the art of living. Today the farm landscape is increasingly a dead landscape—devoid of birds at nesting time, and ever more lacking in those amenities of nature that have inspired mankind over the centuries.

Ironically, the countryside has been impoverished in the name of production. The trend is due solely to a shortsighted overemphasis on short-term economic gain. Efficient has come to mean only that which returns a fraction more on the dollar invested. The waste of resources is actually encouraged in the process, providing only that a profit be made today.

*This is an extension of Mrs. Owings' remarks made during the panel discussion.

We boast of increased agricultural output per man—and rightly so, if our concern be strictly technological—but we overlook declining net farm income and the increasing costs of maintaining the current overproduction. These higher costs are both direct, in dollars invested in Federal agricultural programs, and indirect, in disorderly human displacement from the land and in the death of too much of our landscape.

One of the modern farmer's most destructive economic tools which has been responsible for the death of the landscape is the array of persistent chemical insecticides with which he has been encouraged, by land grant colleges and Washington bureaus, to poison the landscape.

Man's long history is full of examples of foolish devotion to narrow ends. Today's landscapes bear sad testimony to the overemphasis on short-term economics too often advocated by our Federal departments without clear policy formulation by the Congress. Our Nation, if it is to endure another 200 years, and truly profit from the scientific advances of the last 200 years, needs a national policy built on a lasting harmony between man and the land. Agriculture is still the major land use, so agriculture must be soundly based.

A healthy landscape is one that produces more than an extra margin of profit on the farmer's dollar. We have, in this fortunate country, solved our problems of food production, are in fact embarrassed by food surpluses. Tomorrow's challenge is to maintain adequate production while restoring all those natural byproducts of nature that once made the farm landscape so satisfying.

We can praise agricultural chemicals in the same breath that impels us to call for a restriction in the use of persistent chemical insecticides. This is no more than a President's Science Advisory Committee and a Senate subcommittee have recently urged upon us. It is no illogic but a recognition of the complexities of the landscape.

There are, fortunately, alternatives to our current overuse of these mischievous poisons. We need only to encourage the use of these alternatives with the same enthusiasm we have lent the chemical approaches. If some alternatives prove inadequate, we must invest more in the discovery of new and better methods to enable the farmer to produce the foods and fibers we want without poisoning the landscape. We must, in short, devise a policy of land use that will nourish man's spirit by restoring that diversity of living things in the landscape that makes it both more stable and more rewarding to man.

ROBERT L. PERKINS, Jr. The Chairman's remarks referred to a pond damaged by silt washed in from a housing development. Since many such developments get Federal assistance in the form of mortgage guarantees one method of protecting the landscape would be to require that proper steps to reduce silt run-off and other damage outside a subdivision be taken in order to make the development eligible for Federal participation. Possibly a way could be found to bring in soil conservation personnel at the subdivision stage.

In general, a workable system is needed for the regional coordination of the many Federal activities affecting the landscape. This would include hopefully, the coordination of all Federal programs with the objective, recognized by this conference, of protecting and enhancing the appearance and quality of the environment. To handle conflicts in Federal and federally supported projects a regional evaluation system might be set up aimed at providing an orderly resolution of conflicts in the process of which all resource values get appropriate consideration.

A number of other suggestions follow: A way is needed to retain some of the natural and semi-natural landscape features of rural lands being transformed into urban or suburban communities. Changes in Federal housing activities and regulations might be made to help produce an incentive for local approval of cluster developments or at least some form of density zoning which, with appropriate site planning, would permit leaving features such as steep slopes and stream valleys unbuilt upon. A combination of restrictions, incentives and more flexible building codes should be sought to permit the actual buildings (commercial, housing and public) to be more closely adapted to the existing landscape. Better limits and controls are needed for earth moving, since it produces about the most long lasting and widespread landscape blots. More attention should be given to the suitability of land for development, particularly soil and water conditions, in determining eligibility for FHA and VA mortgages.

Our present system which leaves zoning and planning authority largely in the hands of local government in most of the country, is outmoded by changes in density and our way of living. Much necessary zoning and planning cannot be handled at the local level. Leaving all this power in the hands of local government often reduces the freedom it is aimed at protecting. Poorly informed or motivated local officials often make sweeping decisions which have a marked effect on large numbers outside the jurisdiction where the decision

is made. The competitive struggle to attract industry and commercial development for ratables results in a scattering of such development that in turns creates a monotonous uniformity over wide areas which reduces the choices of environment to live in.

A new category should be considered for National Park Service projects, one to handle natural and scenic areas which are of national or regional significance, but are too small to qualify for existing Service categories.

A systematic designation of areas of special scenic or natural value is needed so that they can be given as much protection as possible by programs in which the Federal Government participates. Where the owner of such areas desires to protect them, some plan of Federal assistance that does not involve outright ownership should be available. Lease and easement arrangements can be worked out by which the Federal Government would be given an interest in land under the primary jurisdiction of others so as to permit Federal intervention in cases involving eminent domain. Thus, a Federal agency would have authority to protect some important lands, when it felt this was justified, without having first to assume the administrative burden and costs of those lands.

MINOTT SILLIMAN, Jr. President Johnson has asked for suggestions on specific activities that might be furthered in the field of natural beauty. The Soil Conservation Society of America is a technical and educational organization dedicated to advancing the science and art of good land use. The 12,000 members are actively engaged in the conservation movement of this world.

As these members work with landowners and operators of private lands and with the care of public lands they are conscious that the conservation of soil, water, and related natural resources are all about us in the lands of America.

The Soil Conservation Society of America has developed a booklet, "Help Keep Our Land Beautiful" by taking a typical American family through their countryside where they see good productive soil which produces their food, the trees that produce their lumber, and the land that produces the wildlife.

It is important that all people recognize the value of looking at the farms for beauty. Good productive farms, with top soil in place, are a thing of beauty and produce clean runoff water for our streams.

Civic clubs have provided many of these educational-type booklets

on soil and water conservation published by the SCSA (Soil Conservation Society of America, Ankeny, Iowa) as reference material for schools.

Dr. J. HAROLD SEVERAID. As offensive to me as a junkyard is an old ramshackle barn, or other farm building, unpainted and tumbling down, if not already collapsed. I heard no one complain about this. Therefore, I propose that steps be taken to coerce or cajole the owners of such offenses along primary public and scenic highways to dispose of unsalvageable buildings and to fix up and paint up salvageable ones. It would be worth matching grants to accomplish this. A well kept farm is attractive. A poorly kept up one is an eyesore. This applies to discarded or improperly housed farm machinery also.

MAX M. THARP. Creation of wildlife sanctuaries wherever possible is desirable to preserve our diminishing population of animals and birds for the enjoyment of our people. Such sanctuaries are extensive users of rural land and would be particularly suited to farmlands not now needed for agricultural production. These areas could act as land reserves available for future agricultural production if needed. Such areas could be developed in their natural setting and managed to preserve their natural ecology. They would provide for the needs of educational institutions for study of plant and animal life in a natural habitat.

PAUL E. WAGGONER. We are here talking of natural beauty for the immediate reason that our President led us. But we must realize why we are able to think of amenities and why the President's leadership will bear fruit. Then we can better assure that we will continue enjoying amenities rather than suffering squalor.

A startling increase in yield per acre has released people from toil in the field, it has fed more people on a decreased acreage and it has freed hillsides from tillage. Thus we have ease to enjoy, food to eat, and fields to landscape. This is why we are able to think of natural beauty and able to restore natural beauty.

The prerequisite for continued concern and preservation of natural beauty is not a retrogression in the science and art of farming, but greater improvements that will increase yields per acre still more and thus free still more acres for landscaping, while feeding the growing numbers of people who would enjoy the view.

Dr. T. T. WILLIAMS. Mr. Monk made a statement yesterday that beauty rarely exists in a poverty environment. In this

affluent society there are too large a percentage of our rural people who live under such a condition. I would hope that this group go on record in favor of incorporating the basic philosophy and/or programs of the Economic Opportunity Act in developing rural America's natural beauty.

As land is acquired for parks, roads, and recreation facilities let us not exploit the poor small farmer who because of his economic and political position is more vulnerable than relatively large farmers or landholders. Thus, I would like to have this committee recommend to the President that when acquiring land from low-income families that it be done on a long-term lease basis rather than through outright cash purchase. The seller will receive from the government a monthly check based upon a cost-of-living index. This approach will serve to (1) raise the living standard of the low-income farm family, and (2) give him a degree of dignity and respect to know that he is receiving an income by providing a product—land—rather than a welfare payment. The government will have first option on the land if the owner desires to sell.

RECLAMATION OF THE LANDSCAPE

1:30 p.m., Monday, May 24

The Chairman, Mr. MOTT. Landscape rehabilitation is a subject on which your chairman is not an expert, nor is he familiar in detail with some of the subjects that will be discussed in connection with it.

I am impressed with the fact that man in his inventive genius, coupled with the country's wealth and the advanced technology of the United States, has been able to conceive, design, and produce a machine for strip mining operations which will move 210 tons of earth every 55 seconds. This is a mammoth machine. It is taller than the Niagara Falls, as high as the Golden Gate Bridge in California and is eight traffic lanes wide.

I also learned that there is a company in the United States whose genius for organization and logistics is capable of moving from Jamaica to Mississippi 4 million tons of bauxite each year, and this amount will be increased to 6 million tons next year.

The efficiency and organizational ability of the sand, gravel, and rock-crushing industry made it possible to mine, process and move 1,500 million tons of sand, gravel, and crushed rock this year to satisfy the needs of the building and construction industry.

It is estimated that within the next five years 4 billion tons of sand, gravel, and crushed rock will be required to build the country's bridges, buildings, and boulevards.

I mention these facts to give you some idea of the scope and magnitude of the industries in the United States that are now mining for sand, gravel, rock, and coal. We need sand, gravel, and crushed

Members of the Panel on Reclamation of the Landscape were William Bramble, Harry M. Caudill, H. E. Collins, Edward K. Davison, William Penn Mott, Jr. (Chairman), Representative Richard L. Ottinger, Hamilton K. Pyles, and Donald N. Stocker. Staff Associate was Julian Feiss.

rock to build our freeways. We need coal for coke to feed our steel mills and to produce electricity. These companies are helping to build the United States, to build our Great Society and they are an important part of the economic growth of this country.

It seems to me that the creative mind of man, the country's wealth, and our advanced technology could devise ways of restoring the beauty of the landscape destroyed by surface mining, effectively and efficiently, if the same effort is directed toward restoration as has been expended in extraction.

Have we not come to the realization that our natural resources are neither inexhaustible nor indestructible? The public's interest in the landscape of this country requires that the utilization of our natural resources, so essential to the growth and development of the economy of this country, be mined according to a plan that envisions the restoration of the area to its former beauty and this dictates a policy of mining that must, by advanced regional planning and control, be established that will protect the ecology and environment of that area and guarantee to the people the restoration of the beauty and productivity of the land at whatever cost and by whatever means is necessary.

There can be no halfway measures nor can there be a timid approach to solving this problem. The extraction of coal, sand, gravel, and crushed rock from the earth has not been a timid operation.

The seal of California states, "Give me men to match my mountains." We have developed machines to tear down and destroy the mountains. Now it's time to give us men with the wisdom and courage to restore beauty to the landscape, matching the beauty and majesty of the mountains.

Provincial thinking, politics, and the exploitation of our natural resources must not enter into the discussion. Every citizen has an interest and should be concerned. Private enterprise, if it is to be worthy of the great advances and the economic growth that it has so ably fostered, must from now on accept responsibility for restoration of the mined areas and the wise use of our natural resources in the total public interest. In other words, profit and quality of the environment must be considered together, not separately.

Mr. PYLES. The quality of our landscapes suffers from a variety of causes including erosion gullies, wildfires, subdivision scalping, slovenly road construction, and many other acts that bare

the soil without care or safeguards. However, of all the scars on our landscapes, surface mine operations, both past and current, present the greatest problems and the greatest opportunities for betterment. So my remarks on the rehabilitation of landscapes are confined to surface mine operations.

First, I want to acknowledge all the good work that has been and is being done by progressive industry engaged in surface mining. In many cases, formerly unproductive lands have been turned into useful, productive areas after mining operations.

Unfortunately, all this good rehabilitation work is not keeping pace with new surface disturbances; nor have we made a worthwhile dent in the job of rehabilitating mined-out areas of the past where no authority exists to correct it. Streams continue to be polluted and related resources are degraded.

We are all generally aware of the scope and nature of this problem and it serves no purpose to wring our hands or point a finger of blame. The real questions are: What needs to be done, and how can we best meet these needs?

We are at the beginning of a long-term program. The first step is an accurate survey of the job to be done and the development of a comprehensive program for rehabilitating surface-mined areas of the United States. This is now provided for by the Appalachian Regional Development Act.

As we start on this long-term program, certain short-term actions can go forward now with the full expectation that they will not be out of step with the over-all program to be developed. One example is a provision for the rehabilitation of mined areas on public lands in the Appalachian Region. Another is to continue to step up research in all problems of surface mining and restoration. Yet another is the action that communities, companies, and individuals can take on planning and developing mined areas for productive use in local situations.

We can probably sort the rehabilitation problem into several general categories for recommended action. One category is the surface-mined lands in steep, mountainous country. Here the cost of restoring the land to its original value may exceed by many times the original market value of land surface or the market value of restored lands.

Another category is the surface-mined areas on level and rolling topography. Here restoration may be profitable. These categories

can be further divided between the past and abandoned, and those being currently mined or planned for future operation.

In the category of older, abandoned surface mines in steep, mountainous country, the private landowner cannot be expected to provide full rehabilitation because of the dollar loss involved. The costs of restoring lands in this category will either have to be shared or borne entirely by public funds.

The use of public funds for a greatly expanded program of rehabilitation can be justified by the public interest in removal of ugly scars on the landscape; improved water quality of streams; availability of additional public lands for recreation purposes; and other benefits. To some degree, the Land and Water Conservation Fund provides a means for the Federal Government and States to acquire in fee, or acquire an interest in, those lands where outdoor recreation use would be the major purpose. The States should find a place for this kind of acquisition in their statewide comprehensive recreational plans that are a prerequisite for funds under the Land and Water Conservation Act.

On the other hand, restoring surface-mined areas on level and rolling topography could be profitable for imaginative investors and communities. It is in these areas that cost sharing and technical assistance from Federal and State governments might best be confined to planning phases of rehabilitation and future use.

Many strip-mined areas in this category have already been restored to a useful purpose and often to a higher surface value than the original lands. Agencies, mechanisms, and skills are presently available at Federal and State levels to assist in this work but specific legislative direction is needed to carry it out.

In addition, we need more uniformity in the development and administration of surface mining laws by the States. Existing State laws vary widely in substance and application, creating indecision and unfair economic advantage among the States. As a minimum, these laws should include basic principles common to all States where surface mining is practiced.

For present and future surface mining, we suggest the following set of basic principles:

First, all surface mine operations should be based upon an operating plan that includes not only methods and time schedules of extraction and restoration, but also a portrayal of its final appearance and prospective use. The treatment of waste dumps, roads,

tipples, and other temporary structures should be included as a part of the plan.

Second, surface restoration costs should be considered as much a part of the total costs of mineral extraction as core drilling or hauling the mineral to market.

Third, specifics of restoration must be adjusted to the landscape needs of authorized planning units. These planning units would include highway landscape plans, and community, county, or regional landscape plans.

Finally, if these principles for action are to be met within the margin of profit, there is a need for new kinds of equipment and methods directed at reducing costs of the total job. The combined effort of government scientists and the scientists and engineers of the mining industry should be brought to bear on developing new types of equipment that will realize the full utilization of our mineral resources without irreparable damage to the landscapes.

In sum, there is a need to (1) survey and develop a sound program for restoration of surface-mined areas; (2) continue and step up a research program on all the problems of restoration, including equipment and methods; (3) demonstrate restoration and landscape values on public lands; (4) provide technical assistance and a sharing of costs in planning restoration on suitable private lands; (5) correct the past damage on steep, mountainous lands at whatever expense is necessary; and (6) encourage the adoption of common principles in State laws governing surface-mining operations.

Dr. BRAMBLE. Reclamation of spoil bank areas that are an aftermath of strip mining for coal, is one of the important modern problems that faces the country in beautification of the landscape. It is a problem that can and must be solved if we are to retain the natural beauty of certain heavily populated sections of the country that are in position to be viewed by many thousands of people.

It is vital to remember that strip mining is a common and economical method of mining coal in at least 12 midwestern and eastern States. It is a vital part of the economy of these States. For example, in Indiana about 15½ million tons of coal valued at \$62 million are mined each year and over 70 percent of the coal mined is by strip mining. About 67 percent of this coal is used in generating electric power, and about 2 billion tons of coal remain available for recovery mining, which at present consumption rates could last about 1,000 years.

The spoil banks left by strip mining create a strikingly ugly blot on the landscape that is all out of proportion to the percent of land stripped. Moreover, strip mining has often led to stream pollution, either alone or in combination with deep mining. Using Indiana again as an example, while only about 2 percent of the land area has been affected in the 19 strip mining counties and while acres-per-county vary from only 20 to 16,755 acres, strip mining disturbs the landscape in all 19 counties and is a major eyesore in at least 15. In regards to pollution, it is well known that acid materials seep into the Patoka River and reportedly make it barren of fish life for about 58 miles. Looking at a broader view of six States which border on the Ohio River, about 5,194 miles of streams are affected in that area by acid mine pollution.

The vegetation of all but a few highly acid spoil banks can be successfully done with trees, shrubs, and grasses. A great deal of planting with these materials has been done but there are gaps in reclamation that need more attention, particularly in beautification along roads and highways. In Indiana about 82,475 acres have been strip mined, and of these, 69,092 acres have been reclaimed and 9,476 acres of water have been produced. The latter are a source of excellent fishing where not polluted by acid materials.

In nearly all States where strip mining is widespread there are laws that regulate strip mining and provide for reclamation. These laws vary from State to State. Considerable differences exist among them in the degree of leveling required, and in methods of inspection and enforcement. A study of existing State regulations should be made immediately as a basis for recommending model and effective State regulations. These should be so drawn up that they could be fitted to the special geologic, topographic and economic conditions of the various States. A uniform Federal law should not be imposed upon the States involved.

A solution to the strip mine problems should be sought in strong State regulations supported by active mining associations and corporations. This would require professional reclamation staffs employed by the mining industry to be reinforced by Federal and State cooperation in such items as planting stock and inspection. The present Federal agencies are adequate to do this with cooperation of the State conservation departments and mining industries if adequate financial support is given. Such a system has worked in Indiana for a number of years. Shakamak State Park

and the Green Sullivan State Forest are major recreational areas that indicate how beauty can be created where strip mining had disturbed a large percent of the land area.

Specific needs of the immediate future are reclamation along highways and beautification of the landscape around the water impoundments that have been created by strip mining. This will require State and county planning for rehabilitation to provide for outdoor recreation, hunting and fishing, and production of wood products. Such a program could be made a top priority for use of the new Land and Water Conservation funds and for the Bureau of Outdoor Recreation to help plan and acquire reclaimed land for development of public recreation areas in mining States.

Mr. STOCKER. Pennsylvania Power & Light Co., an investor-owned electric utility, serves a 10,000-square-mile area in central eastern Pennsylvania. The northeastern portion of this territory contains the anthracite area which had a one-industry economic base for many years.

The anthracite industry's decline resulted in the loss of 58,000 mining jobs from 1945 to 1960 and the emigration of 100,000 people. It also ignited the tremendous spirit and action of the people in the region to aggressively seek new diversified industries. Their achievements have been outstanding—a gain of 31,000 new manufacturing jobs in the last 10 years alone.

The anthracite area has had many tools to work with . . . plant-sites, shell buildings, low-cost financing, a supply of capable and willing workers, friendly people, convenience to the Nation's largest markets, transportation, schools, housing, and a willingness to cooperate among communities. However, new trends have been occurring in plant location studies. Site selection is becoming more sophisticated. Ever increasing importance is being placed on area appearance.

There are sharp contrasts in the natural environment of the anthracite area. From one side of a mountain you can see a lovely fertile valley. From the other side of the same mountain the view is marred by spoil and culm banks and the scars of strip mining. Years of mining operation have left their mark on the area. Though the scars are evidence of the region's extensive and continuing contribution to progress, they are, at the same time, becoming an increasingly greater deterrent to accelerating the area's economy.

Here is where remedial action had to be taken in the anthracite

area. In line with its comprehensive area development activities, P.P. & L. accepted the responsibility for initiating a beautification program throughout the anthracite area. The program is called Operation Trees. The objective is to establish vegetation—trees for the most part—either to screen the view of disturbed areas or to cover disturbed areas entirely. The landscape would then become attractive which would, in turn, enhance the region's opportunities for securing new industries.

In July 1961, P.P. & L. contracted for research to be undertaken by the Northeastern Forest Experiment Station, U.S. Department of Agriculture. They prepared maps delineating and classifying all disturbed areas by spoil type and existing tree cover. They also indicated the areas requiring screen and cover plantings and they indicated potential water recreation sites.

Their survey showed a total disturbed area of about 175 square miles. They estimated 20 million trees would be required for the conspicuous, most unsightly areas that were easily visible from the main roads. Less than a million would be for screen plantings and the remainder would be cover plantings.

In addition to mapping, the research work is also determining the growth and survival rate of various species of trees on mine banks, and the suitability of various trees for cover and screening purposes.

Research is being conducted on areas which were planted by the Pennsylvania Department of Forests and Water and the Department of Mines and Mineral Industries. Eleven species have so far been found to survive on 172 plots located throughout the region. These 11 species have been classified as to survival, vigor, aspect, height, age, soil material, and slope.

In addition, 40 experimental areas were planted by the Forest Service during the 1963 spring planting season, so that other species could be determined suitable for planting on spoil banks. However, this information will not be available until next year. P.P. & L. contacted the major mining interests to inform them of this program and they have been most cooperative.

With the completion of the initial phases of the research work in 1963, P.P. & L. planted five sample areas along arterial highways with ball and burlap trees. These gave the public an opportunity to see the potential effect of the screening program.

Our next step was an extensive campaign to secure volunteer groups who would assist in the first mass screen plantings in 1964.

P.P. & L. purchased over 250,000 seedlings from private nurseries and they were planted last year around 33 communities by 2,700 volunteers from 139 organizations. This spring an additional 225,000 seedlings were planted through the same type of cooperative endeavor.

The proper choice of species, and their positions in a roadside screen, are important for rapid initial effects and for long-time shielding. Slow-growing evergreens like the spruces, which hold their branches for many years, should be planted in the front portion of a screen. The central portion should consist of faster growing evergreens, such as pines. The portion farthest from the road should be planted by still faster growing species, which can be deciduous.

It should be stressed that efforts must be concentrated on planting seedlings because of the ease of planting them and because of the vast areas to be planted. Balled and burlapped stock could require fertilizer, lime, and great quantities of water. Seedlings have a much better chance to establish themselves.

Whether we plant seedlings or ball and burlap stock, we can never expect 100 percent survival. Too many factors enter into the picture which could cause the death of a tree even before planting. Transportation, exposing roots to the air before planting, and even the method of planting could cause death of the tree. However, we can expect a high percentage of the trees to survive.

Planting areas are selected on the basis of their suitability for planting and the physical results which they render. In all cases, P.P. & L.'s forester prepares a soil analysis of each planting site and recommends the species to plant in that particular area.

We are hopeful the screen plantings will be completed within another two years.

What has been our experience to date on this program and what do we see ahead?

1. Operation Trees was designed as a volunteer self-help program. A good part of the plantings have been made by youth groups. We feel this has been one of the most important aspects of the entire activity—the willingness on the part of the young people to actively participate in beautifying their home areas.

2. We found that changes are continually occurring in the status of potential planting sites. A few examples—under governmental programs some of the huge culm banks are being utilized to flush nearby deep-mined areas; the Pennsylvania Department of Mines

and Mineral Industries makes extensive cover plantings each year; some of the disturbed areas are being reclaimed and developed for residential, commercial, and industrial purposes; and the recently enacted Appalachian development program will reclaim some of the disturbed area.

We are now in the process of updating the maps as an aid to determining the present status of the problem and the scheduling of new plantings.

3. Further research is needed and it is being contracted for by P.P. & L. covering growth and survival of various tree species.

New areas of our cooperative research include determining plant material which, in addition to being able to survive in this unique environment, can be planted by mechanical processes. Experiments with some grasses have not been successful to date. Research is also being conducted on materials such as crown vetch which would become a catalytic agent for other plant material by supplying nitrogen-fixing bacteria.

This research work has cost P.P. & L. \$75,000 to date. We feel the Northeastern Forest Experiment Station of the U.S. Department of Agriculture is doing an outstanding job in working on the specific problems relating to the anthracite area. We recommend the department be utilized in other problem areas.

In conclusion, our experience indicates that, wherever possible, there is real merit in having local people made a part of local reclamation and beautification projects.

Mr. COLLINS. In considering land reclamation and restoration in our two countries it is necessary to appreciate the contrasting conditions. Although the land area of the United States of America is nearly 40 times that of the United Kingdom, the population is only $3\frac{1}{2}$ times greater. Thus, the density of population in the United Kingdom is over 10 times that of the United States of America. Whilst, therefore, the problems of land conservation are similar, the scale is different.

It is largely this difference in scale which led to the passing of our first Town and Country Planning Act in 1947. Broadly speaking, the effect of this and subsequent acts is that the permission of the local planning authority is required for any new development involving the use of land. Because planning authorities can impose conditions on land use, it is possible to obtain some degree of control over both the siting and the development of new buildings and in-

dustries. This has led to the creation of greenbelts in and around our cities and the cessation of ribbon development, which is the extension of industrial and domestic building along the frontages of the main roads from our towns. In particular, planning control has helped to minimize the effects of dumping and excavation which have in the past been major causes of dereliction in the United Kingdom—and it is dereliction that I would particularly like to talk about today.

In 1963, His Royal Highness, the Duke of Edinburgh, called a conference representative of organizations in Great Britain vitally concerned with land preservation and conservation to discuss the theme: "The Countryside in 1970." At this conference I represented the National Coal Board and I presented two papers outlining the land restoration work which followed open-cast or strip mining of coal. A number of recommendations were made and progress with these is to be considered at a further conference to be held in October this year. It is therefore with considerable interest that I attend this White House conference.

It seems to me that if conservation is to be effective, the first essential is general acceptance of the fact that in these days of rapid change, the control of land use, and particularly of dereliction, is equally as important as many of the other forms of control to which we are all subject. If this is accepted there appear to be two main tasks: (1) to obtain a suitable measure of control over what we do in the future and (2) to clean up the legacy of the past.

As to what is a suitable measure of control, the needs may vary in our two countries because of the difference in scale which I mentioned earlier. In the United Kingdom, for instance, with a population of 53 million, we have 70,000 square miles only of agricultural land. It is certain, too, that between now and the year 2000 the quantity of land in use for industry, housing, services and so on will increase considerably. The pressure on our land is therefore much greater than it is in the U.S.A. For this reason we probably require a somewhat greater degree of control than may be necessary here.

In Great Britain the mining industry has been responsible for more land desecration than any other industry and the National Coal Board has been faced with the problem of derelict land in all coal-fields in the country. Deep mining of coal leaves its scars of waste dumps and subsidence damage to land and property. Strip mining of coal causes loss of amenity whilst the operation is in progress but leaves no permanent scars. However, coal represents only about 4

percent of all strip mining, iron ore, sand, gravel, and clay being responsible for the balance of the 200 million tons of mineral produced annually from surface mining.

With regard to the deep mining of coal, it has been possible to mitigate any surface damage caused by subsidence, in some cases by back-filling underground, and also by what we call harmonic extraction of the coal seams which so limits the stresses set up in surface buildings that damage is obviated despite a lowering of the surface. Special structural precautions are normally taken with new buildings on land liable to mining subsidence.

Work is also proceeding to eliminate the ugliness of waste dumps. Some of the material is used for brickmaking and vast quantities have been removed for the construction of new motorways. We are now contemplating the use of this waste material for the manufacture of aggregate used in concrete constructions. Where it is not possible to utilize the waste material, much work is being done in contouring the dumps in conformity with the surrounding countryside. Experiments are in hand for planting the contoured dumps with suitable trees.

In strip mining the land has always been completely restored ever since this form of coal mining was started in 1942. This not only involves filling the final void, which can sometimes be extremely expensive, but we have to strip and segregate subsoil and topsoil. When the site has been regraded and the soil replaced, fences are erected, ditches are dug, and the land is then given a 5-year course of agricultural rehabilitation by the Ministry of Agriculture on behalf of the National Coal Board. This includes intensive fertilization and the installation of tile drainage. The average cost of this restoration, excluding the filling of the final void, is in the order of \$1 per ton of coal extracted. This may well seem high to my mining friends in the U.S.A., but even after meeting this cost we still manage to make a profit of about \$2 per ton on our strip-mined coal.

In an endeavor to improve our restoration even further and to enable us to screen our operations from view when working close to housing or major roads, we have in the past two years been using mechanical equipment designed and developed in the United States of America for transplanting semi-mature trees. (We are particularly indebted to the Civic Trust who pioneered semi-mature tree transplanting in Great Britain and to the authorities of the Morton Arboretum near Chicago for the know-how of the system.)

This is not a planning requirement, but something we have instituted ourselves in order to reduce the impact of strip mining on the countryside.

It is now generally accepted in the United Kingdom that, although our strip mining operations are unsightly during the working of a site, we do restore the land surface—often in an improved condition. For example, one site in Scotland, containing between 25 and 30 million tons of coal, was useless bogland when we started strip mining five years ago. When complete there will be made available 350 acres of good agricultural land; already part of the site has been restored and sheep are grazing on the grassland. In addition, we will construct a landscaped lake which will provide recreation in the form of sailing and fishing. In other cases we have provided golf courses and sports fields for use of the local people who had been temporarily affected by our strip mining operations.

Turning now to the question of past dereliction, although again the scale is undoubtedly different, we are, I feel, on common ground in that much of the dereliction in both countries probably tends to be concentrated in the older industrial areas, many of which were developed with little or no regard to the environmental needs of the people who lived and worked there. I cannot help feeling that in areas such as this, properly planned reclamation offers us an opportunity to go some way towards bringing these areas back into line with life in the second half of the 20th century—an opportunity to cut adrift from the old ideas of concentrated urban sprawl, and to bring the countryside back into our urban districts so that beauty can in fact become part of our daily life.

There is little doubt that where dereliction occurs in areas of high population it can have a serious effect on both the social and economic life of those areas. When environment deteriorates the social, sometimes the economic structure tends to deteriorate with it.

Fortunately, with modern earthmoving and tree-transplanting techniques, we have the means of carrying out reclamation on a scale and at a speed which were undreamed of at the beginning of this century. We have the means, and our generation will be judged by the use we make of them. The answer in both our countries almost certainly lies in how much we are prepared to spend today for the benefit of those who will follow us.

Mr. DAVISON. The largest of the extractive industries in terms of tons produced are the sand and gravel and the crushed stone

industries. Currently, their combined production is about $1\frac{1}{2}$ billion tons annually. It is anticipated, on the basis of trends since the close of World War II, that by 1970 production will be somewhere between $1\frac{3}{4}$ and 2 billion tons annually. By far the largest portions of these minerals are used for concrete for all types of structures; for bases; slabs and surfaces of highways and streets; and for the repair and resurfacing of highways and streets. While they are of fairly wide occurrence, many deposits are not suitable for construction use because of poor quality, nonresistance to weathering or traffic abrasion, or because of unsuitable gradation.

Sand, gravel, and stone used as construction aggregates must be produced near the points of use as they are heavy-loading, low-value materials. The average length of haul by rail is about 80 miles; the average length of haul by water is about 35 miles; hauls by truck, now accounting for about 80 percent of the transportation of these commodities, rarely exceed 30 to 35 miles. The major portion of production must of necessity occur within or on the fringes of metropolitan areas where construction is concentrated.

The competition for land in such areas has become, without question, the most serious problem faced by a majority of the commercial producers of aggregates, and the situation can only become increasingly critical. Mr. Dennis O'Harrow, Executive Director of the American Society of Planning Officials, in an address to the National Sand & Gravel Association entitled, "The Urban Future," projected that the 100 million people expected to be added to our urban population in about the next 30 years will need urban facilities equivalent to $2\frac{1}{2}$ to 3 times the present facilities of the well-known "megapolis" extending along the eastern seaboard from Boston to Washington. He further said:

To get quantitative about land: our experience shows that for each person added to the population of an urban area, about one-quarter acre is converted from nonurban to urban use. For our basic 100 million (additional) urban population we shall need 57,500 square miles of land, slightly more land than there is in the entire State of Illinois.

Some projections of sand and gravel demand, which I believe to be reasonable, have indicated that, whereas production from the close of World War II to the present has totaled a little over 7.1 billion tons, demand could total nearly $10\frac{1}{2}$ billion tons in the next ten years, and an additional 14 billion tons in the succeeding ten

years. Crushed stone demand for concrete and roadstone purposes alone runs at about 50 percent of sand and gravel demand, and there is presently no reason to expect much change in that relation. In short, it is reasonably predictable that production of these construction aggregates in the next 20 years will be 3 to 3½ times what it has been in the last 19 years.

As might be expected, where most marketing areas are generally limited to an area within 30 to 50 miles of the site of extraction, the degree of criticalness of presently available reserves varies widely across the country. Some limited information available to the National Sand & Gravel Association has indicated that reserves of sand and gravel held or controlled by a representative sample of producers have an average remaining life at recent rates of production ranging from over 40 years in Alabama and Mississippi to about six years in Connecticut and Minnesota. In the Los Angeles metropolitan area—one of the largest construction markets in the world—reliable testimony before a California legislative committee pointed out the probability that every acre zoned for sand and gravel extraction at the time of the investigation would be depleted by 1975. It was testified that known deposits near those presently being worked could add about 15 years' supply if zoning authority will protect these additional areas from encroachment and permit extraction. Otherwise, it was estimated, transportation from more remote areas into this urban construction market will probably add in excess of \$70 million a year to construction costs in the area.

The public interest requires economical and orderly development of all natural resources—the surface of the land—the water—the minerals. Orderly development needs recognition by all interests—the public, conservation people, planning people, and the extractive industries—of the benefits of planning for multiple use of land. Multiple use allows extraction of the mineral values followed by preparation of the land for any number of facilities and uses—parkland, recreation areas, homes, commercial and industrial establishments, sewage plants, water reservoirs, and—to the alarm of many people—sanitary landfills. Many companies in the sand and gravel and crushed stone industries have in the past and are now accomplishing suitable afteruse, not only in recognition of a public duty, but also to the operators' economic benefit.

Just a word about sanitary landfills. The proper disposal of the tremendous amounts of solid refuse generated by urban-suburban complexes is becoming increasingly expensive and critical. Con-

trolled and well-supervised disposal in depleted pits can bring pit areas back to surrounding grade levels and can then be followed by building construction or recreation uses. A good example near Washington can be seen along the Shirley Highway in Fairfax County, Va., where a large operation in steel warehousing and fabrication has been erected on a landfill in a depleted sand and gravel pit. In the Los Angeles area many sand and gravel pits are 125 feet deep and are still above ground water. The only feasible way to bring these areas back into use is through filling with refuse. Incineration of refuse is not used in this area because of air-pollution problems. The State of California is now conducting a research project in one of these deep pits at Azusa in southern California to investigate the effects on ground water of refuse decomposition and methods of control.

I have said that many producers of construction aggregates plan and carry out multiple use of their land. It must be admitted that a great many do not. Unless these operations are in remote areas they can and should be required to prepare their land for afteruse of some sort. With something like two-thirds of all commercial sand and gravel operations taking place in areas subject to some form of local or regional planning authority, we have in existence a means of influencing the multiple use of aggregate-bearing lands. The local industry and planning authorities can outline such lands and protect them by regulation for a suitable number of years from encroachment by other uses not now in existence in those lands. At the same time, appropriate standards of operation—setbacks, area screening, control of noise, dust and vibration—should be enacted for the protection of the public and surrounding properties, and compliance with such regulations can be made a condition for continued operation. Standards for reforming the land to appropriate afteruses can be outlined in the regulation and covered by bonding requirements. There are, over the country, a number of instances where cooperation of the industry and professional planners has accomplished equitable regulation conforming to a broad public purpose such as I have outlined.

In 1955 when the National Sand & Gravel Association established a program on public relations, a significant number of member companies had already been engaged in planned reclamation as a regular part of their operation, some for over 30 years prior to that time. The Association program has concentrated on two major objectives:

1. To persuade all operators to follow the examples of these pioneering companies.

2. To point out to the planning profession the economic necessity for the extraction of sand and gravel and to help them provide controls for operation and reclamation which will protect the public interest and with which the industry can live.

We believe we have achieved a measure of success on both counts. We believe that the continuance of this program will make a contribution to the objectives of this conference.

Representative OTTINGER. Anyone who has ever tackled the job of selling conservation concepts to people on a practical level, knows that you have one very difficult problem to overcome. The average person tends to regard conservation as a laudable, but not very practical battle of the poets and the dreamers against businessmen and engineers. Like the golden rule, they feel that everybody's for it, but nobody can afford it.

As a very practical politician, a former attorney for businessmen and an aspiring conservationist, I find this very frustrating. Worse, it is a clear indication that the important first steps toward the "new" conservation so eloquently advocated by the President have little chance of winning broad support unless we can counter this patronizing attitude with facts and figures. I am convinced that the facts and figures *can* be developed and that they will support the "new" conservation overwhelmingly.

I urge, therefore, that the first responsibility of each panel of this conference is to call for practical economic definitions. We are here to seek action to conserve, restore, and develop very valuable resources. Before we get too far along the road discussing what we hope to see accomplished, we had better be prepared to explain clearly and succinctly why it needs doing and how it will enrich the life and economy of the Nation.

It is a commonplace of conservation to refer to the values of scenic conservation as an intangible, and impossible to measure in dollars and cents. I submit that this is nonsense. We simply have never really tried.

For many years, planners and potential exploiters sought to use the land reserved in Central Park for a variety of purposes. They lamented the lost revenue to the city. They complained that the land was useless and not contributing. I would very much like to see the real estate values and tax revenues around Central Park

compared with those at other less beautiful points in the city. I would like to see a balance sheet that showed what the park has cost against what it has contributed to the city, just in dollar and cents values alone, leaving out the qualitative pleasures the park brings to the people who enjoy it.

President Johnson said that beauty "is one of the most important components of our true national income." I am sure that he is right. I am also sure that this can be shown, and that when it is shown, our job will be very much easier.

In his natural beauty message, the President also pointed to some of the costs of blight. Safety and physical and mental health were among the factors he mentioned. I believe he might have added tax revenues, property values, police costs, juvenile delinquency costs, and some social welfare expenses, as well. The subject needs serious expert analysis to develop economic guidelines—dollars and cents comparisons—that will help people to see that what is good is also profitable.

Let me cite just one other example of the sort of thing I'm looking for. Wouldn't it be helpful in talking about reclaiming the blight of abandoned open pit mines, such as the trap rock quarry in Mount Taurus in New York, if we could show how such blights detract from property values and how, and by how much, economic benefits have accrued to other areas from rehabilitation of landscape in similar situations?

Conservation discussions are traditionally conducted on such a high plane that such practical matters now seem a little crass. But we must not be ashamed to bring the discussion to this level. If we need to be ashamed of anything at all, it's our past failure to do so.

When our reserves of water or helium or other valuable natural resources are threatened, we prepare for a campaign of conservation with an exhaustive economic analysis. Scenic assets are no less valuable and no less jeopardized; they deserve no less attention.

When faced with a conflict between industrial or commercial demands and the demands of conservation, someone is always saying, "Well, you can't block progress." I want to be sure we all know what real progress is.

If we are going to launch the needed programs to achieve a more beautiful America, we are going to have to enlist a broad popular support behind the banner, and high-sounding phrases alone won't do it.

Now there is another very practical reason for preparing an economic basis for our "War on Ugliness" in America. This is a gigantic campaign. The number of panels gathered here today is only a partial recognition of the size of the challenge.

However, the conservation of our government's financial resources is also an important concern and, if we are to make a significant dent in the problem at a reasonable public cost, we must establish a program of priorities and assign specific responsibilities.

I think the topic before us today, Reclamation of the Landscape, is a good working ground for developing such a program. In reclaiming landscape we are faced with a wide variety of problems. Some are longstanding ills like the abandoned open pit mines of Pennsylvania and West Virginia and the rock quarries in my own State. These are serious and ugly blights, and they must be rehabilitated. But, they are, nonetheless, fixed historic problems whose influence is largely static and not spreading.

I would submit that action to correct these static blights must rest primarily on the State, with Federal participation only if a State is unwilling to undertake effective reclamation.

This means that we will have to evolve standards of acceptable land use and determine the basis on which the funds will be disbursed. Is our concept of landscape restoration to include commercial use of the land? Of course, but where and how critical are the questions, and what balance should be struck between commercial values and landscape values, economic and aesthetic?

In the past we have tended to concentrate our conservation efforts in the wilderness. We have made significant strides in preserving the glories of our underdeveloped lands. Now we must turn our faces to conservation in our settled areas. As President Johnson said: "A growing population is swallowing up areas of natural beauty. . . ."

This is an infinitely more difficult problem with which to cope. Everyone could agree with saving Grand Canyon and Yellowstone National Parks. There were few economic interests involved and very little conflict. New conservation involves economic conflicts that go to the very heart of our modern society and the pressures will be tremendous.

The President also said: "The same society which receives the rewards of technology, must, as a cooperating whole, take responsibility for control." I believe he has recognized that our existing

government structure is not geared for this battle, and that we will need to create a new mechanism.

The basic principle of the new conservation is the conserving and developing of natural resources *for* people as against the classical concept of protecting resources *from* people. In this light, I would hope that we would consider first, the restoration of landscape that best serves people. I would hope to see categories defined rather explicitly and justified in sound economic analysis.

Where we are contemplating the creation of housing or controlled industrial parks, some of the necessary financial authority is available through Housing and Home Finance Agency programs. Where recreation is a goal, it may be that authorization is available under the Land and Water Conservation Fund. There are similar authorities in the agricultural appropriations for soil conservation and reforestation. But the program that we are envisioning today—even in the areas covered by existing legislation—will eventually require expenditures so much greater than are now available, that the project appears to assume the proportions of a wholly new program.

One very important element is not covered in many of the existing programs, and I think it is a key element: landscape rehabilitation for the economic and other human benefits that a scenic asset can contribute. Because we have never set an economic value on this, it has always been treated as a secondary issue and the results have been disastrous.

Now we are at a point on which we cannot afford to be fuzzy. Just to get the Federal Government involved in effective action on this problem is going to require specific legislation. We will have to extend to landscape rehabilitation the same cooperative concept that has recently been enunciated for recreation facilities in the Land and Water Conservation Fund and for urban renewal in the Housing Act of 1965.

To do this we will probably have to establish an authority similar to HHFA to review conditions of blight and evaluate State programs for dealing with them. I am going to suggest later some other functions of a quasi-judicial nature that such an authority should be granted. But at this time I am talking about the minimum necessary to deal with this specific problem of static, *historic* blight—through cooperative programs with the States.

Two difficulties with the suggestion can be met right here. First, we will almost certainly run into the automatic objection that many

of the functions of an authority such as I am proposing are already performed to one degree or another by a wide variety of Federal agencies, authorities, commissions, etc. I would point out that this very multiplicity of responsibility in itself is one of the best reasons for establishing a single uniform authority. You need only to look at the results of Federal participation in State planning—where scenic assets have been a secondary consideration—to recognize the weakness of the present system. Then, too, I would point out that many important scenic concerns fall into the cracks between existing Federal programs.

A second objection might be that the Interior Department has been traditionally vested with conservation responsibilities. I would point out that the department's interests in conservation are manifold and not always consistent with advancing scenic beauty. For example, the programs of the Bureau of Mines often involve balancing scenic assets in a context weighted to other economic considerations. Wherever you are treating a subject like landscape as a secondary consideration, you run the considerable risk that the scenic asset will lose. Those familiar with recent history might prefer to substitute "certainty" for "risk". Then, too, many of the scenic problems faced fall entirely outside the Interior Department's area of competence and under the jurisdiction of other agencies such as the Federal Power Commission and the U.S. Army Corps of Engineers.

Traditionally in our government, where the problem became so pressing and the interests so confused as those we face today, we have often solved our dilemma through the creation of an independent commission.

When the problems of trade came to require special attention, we established the Federal Trade Commission outside the Commerce Department. When there was a critical need to create power resources, we set up the Federal Power Commission outside the Interior Department. We have dealt with housing, communications, and a variety of other problems through modifications of this concept. Except where these commissions have attempted to expand their mandate unsuitably or tried to overreach themselves, they have functioned superbly and have successfully dealt with problems not dissimilar to the problem we are facing here today.

There is another aspect of scenic blight that is even more troublesome than these historic conditions of static blight. This is the

blight of epidemic proportions that results from industrialization, commercial expansion, urbanization and population movement and growth. Almost invariably this blight is associated with processes that play an important economic role in the life of people. Whether it is from power lines, superhighways, housing subdivisions, continuing mining operations or ill-placed industrial facilities, these threats to our national beauty cannot just be eliminated. More often than not, the problem is national in scope. Not infrequently financial interests too big for State governments to control are involved. In many cases the answer to the problem will not be immediately forthcoming and considerable research will be required.

The Bureau of Mines now has a group that sets standards for the health and safety of miners. This resulted from public concern over the plight of miners. The research section of the Bureau *does* put out reports for mine operators on new techniques that would help with conservation of mine areas, but there is no enforcement of policy. Their responsibility, they say, is only to encourage rather than to set standards.

Again, high-tension powerlines knifing through our finest residential areas and our scenic open spaces, destroy approximately 30 acres for every mile of line. Scenic damage extends to as much as 300 acres for every line mile.

The Interior Department and the Federal Power Commission have been concerned about the problem, but little or no research has been done to compare the costs in loss of land value and added costs of maintenance against the costs of putting these lines underground or underwater. In fact, in a recent effort to gather material for constituents concerned over proposed lines, I discovered that the data available from these Federal agencies came almost entirely from an industry source that was admittedly opposed to underground lines. Clearly, we will get no progress here until we separate the considerable economic interests that are involved by independent review.

To initiate and carry out the research that is necessary to meet problems such as this, we will need a broader and more effective long-range planning and national coordination effort than is now available.

The practical solution would be an independent commission that can conduct and contract for research and can draw upon the considerable expertise and experience available at the Federal level. Such a commission would be charged with laying down guidelines

and implementing national policy in rehabilitating and preserving the landscape. It could provide an effective mechanism to balance the important competing economic interests involved.

The concept that underlies such a commission is not too far from that which resulted in the formation of the Resources Program staff of the Department of the Interior.

But advice and consultation are not enough to meet this challenge and there are jobs to do that require a high degree of independent action.

I have now proposed a commission charged with three important and interlocking functions. First, it would work on cooperative programs with the States in correcting static scenic blight. Second, it would work on the national level developing better methods for correcting and avoiding the epidemic blight. Third, it would report to Congress and recommend legislation necessary to turn that research into effective action and would implement such policy as Congress prescribes.

There is a fourth function that is equally important for such a commission and that is the quasi-judicial function of acting as fiscal arbiter of Federal incursions on natural beauty.

The worst single offender against scenic resources today is the Federal Government itself. Through such organs of national policy as the Bureau of Public Roads, the Federal Power Commission, the General Services Administration, the Atomic Energy Commission and a host of others, endless violations of the American landscape are approved and carried out.

The superhighways that are planned with strict attention to economics of motion, often ignore the economics of beauty and space. Power line decisions are made on the basis of the efficiency and cost of power alone, disregarding the cost of ruining the landscape. In such decisions beauty will always suffer as long as we are not able to set a comparable value on it, and you can hardly blame an agency that is charged with promoting power or highway development for regarding beauty as the expendable element, even where the margin of difference is mils. As they see it, that's their job.

The commission I am proposing should be vested with sufficient force of law to guarantee that scenic resources and their implications for health, welfare, and economics will be considered adequately in all Federal actions. This would include projects constructed as well as those licensed by Federal agencies and also projects to which Federal funds are applied.

Of course, certain specialized problems will obviously require immediate action within the framework of our existing law. The President's Appalachian program contains much that should come to grips with blights such as the concentrated strip mining of that region has produced. For particularly neglected natural rivers there is the Hudson Highlands National Scenic River bill, which I introduced, and the Potomac program. These both involve new concepts of conservation that may prove helpful in the broadened war on ugliness.

In providing increased Federal incentives and controls to preserve scenic values, the private sector requires particular attention.

I am now drafting and will soon submit a National Underground Powerline Act which will provide significant incentives to utility companies to put their lines underground. It will also provide for research and development activities coordinated by the Department of the Interior. However, I would look with favor on developments that would enable us to transfer this function to an independent commission that could draw upon the experience and expertise of the Federal Power Commission, Interior and private companies and coordinate this program with other similar national conservation drives.

I have introduced similar legislation to give private companies an incentive to install anti-water pollution devices, and other pending legislation provides money for research and incentives for air pollution control.

Today, we are faced with the possible loss of valuable scenic and landscape resources of great economic value to our people. Once gone, these resources will be truly irreplaceable and in addition to the economic assets that will be lost, something very important will have gone from our American way of life.

We have arrived at a point in our national development at which we need to rethink our entire approach to economic questions involving scenic values. In the 1920's and 1930's, when the industry of our Nation was starving for want of power, we created the Federal Power Commission. We vested this Commission with unusual authority to use our lands in promoting the development of power in the Nation. Earlier in the 19th century, in a much less sophisticated way, we did the same thing for our railroads and other utilities. The development of the Nation over this time is a credit to the wisdom of the policy and policymakers.

Perhaps now we have even arrived at the point where we should consider vesting an independent commission with similar powers to protect and promote our valuable and vanishing scenic resources. Such commissions are common in other countries facing similar problems. I well remember the lament of one of the great conservationists of the Hudson Valley when he heard that a beautiful scenic area was about to be desecrated with an ugly industrial installation. They told him that the government could halt this desecration only if it could be proved the site qualified as a national monument.

"In France," he said, "they declare a view a national monument."

He has a point. Our views are disappearing. Our vistas are being destroyed. And we are very much the poorer for it.

If we were ever a Nation that could dig and cut and then just move on, we certainly are not that Nation today.

MR. CAUDILL. The southern Appalachians are so beautiful that they mask the poverty of their inhabitants. The loveliness of the steep hills and narrow valleys must be experienced to be appreciated. Tragically, their loveliness has rarely been respected by the people who live there or by the corporations which own the immense mineral wealth.

Part of Appalachia is the Cumberland plateau, notorious for the destitution of its inhabitants. Until 6 or 8 years ago the 16 miles between Cumberland in Harlan County, Ky., and Eolia Post Office was an enchanting drive. U.S. Highway 119 lies parallel to the Poor Fork of the Cumberland, then crystal clear and dotted with deep fish-filled potholes. The valley is narrow. On the north lies the long ridge of the Pine Mountain, its crest rising craggy and picturesque. To the south is the much higher and more massive Big Black Mountain. This mountain contains some of the richest and thickest coal deposits in North America. Near Eolia Post Office, the Poor Fork bubbles out of the earth and starts its long journey to the sea. A few miles away on the other side of the Pine Mountain, the Kentucky and the Big Sandy Rivers have their sources, flowing northward to the Ohio. The Cumberland trickles westward, eventually reaching the Tennessee.

During much of the year the crest of the Big Black is veiled in cloud wisps. Deep hollows cut its ancient sides. Its coves and points were once heavily timbered. In the spring wild flowers rioted in its black loam. In the autumn after the first dash of frost its forests flamed in every color of the rainbow. The farmers who cultivated

the sandy bottoms, the coal miners who followed the highway to the portals of the U.S. Coal and Coke Corp.'s mines, and the occasional traveler who wandered into the valley could feast their eyes on a remarkable panorama of unspoiled natural beauty.

In the last half dozen years the valley has been shattered. A subsidiary of the world's biggest steel corporation decided to strip mine the outcrop coal in the three rich seams that striate the huge hill. Bulldozers, power shovels, and dynamite cut towering "high-walls" into the rugged slopes. The machines and explosives gouged and slashed the mountain for more than 20 winding miles, following the contour of the terrain into the deep coves and around the sharp points. In some places the cuts rose 90 feet straight up—as high as a nine-story building. Like monstrous yellow serpents they looped themselves over the land, one near the base of the mountain, another mid-way up, and a third near the top.

The rubble dislodged from the immense excavations was flung down the hillsides. The trees, the delicate flowers, the ancient ferns, the moss covered rocks—the entire ecology of an ancient natural system—was buried by avalanches of broken rock and millions of tons of dirt, waste coal, and shale.

Like huge aprons these spoilbanks extend downward. Each hollow is filled with unstable spoil. A mining engineer has estimated that between 500,000 and 1 million tons of such residue were flung into each of the coves. Predictably, rain pelted the spoil banks and winter freezing and thawing loosened them. In gentle showers and lashing storms the dirt and the stone and the shale moved downward into the river bed. The crystalline creek which had sparkled for millennia turned yellow and turbid. The waterholes disappeared and were replaced with heaps of mud and stones. The banks of the stream turned black.

Occasionally a mammoth landslide sent avalanches sweeping across a farm or into a home. Much damage was done to the city of Lynch when a landslide piled mud a yard deep in living rooms, on lawns, sidewalks, streets, and public roads.

U.S. Coal and Coke Corp. sent its bulldozers to dredge the river. They pushed great accumulations of spoil out of the main channel and left it lying in parallel levees on either side. Thus the river, once the cool, pleasant habitat of some of the gamest fresh water fish in the world, became little more than a smooth-bottomed trough

down which water could move quickly after each rain. The natural ecology of the waterway was destroyed for many miles.

The corporation that wrought this damage made a gesture at reclamation. Pine seeds were scattered in some areas and in others tiny seedlings were planted. In some of the mining flats fescue seeds were scattered and some of them took root.

But the blasted slopes lie yellow and dead. The loose dirt has gone downstream to silt other areas and the hollows are filled with the stone and the desolation. The spoilbanks are almost perpendicular because the mountain on which they lie is extremely steep, a fact that may rule out forever any effective effort at reclamation. To reclaim the spoilbanks the slopes must be kept in situ until vegetation can be caused to grow, and in a region with nearly 50 inches of rainfall annually such retention of the soil cannot occur. It is as though loose dirt was placed on the sloping side of a tin roof and expected somehow to remain there under the pelting rains until vegetation could take root.

Thousands of people have been horrified by the spectacle of this blighted valley. The corporation which extracted the coal has reaped a bumper harvest of public ill will. In my opinion, the board of directors who authorized this act committed a major offense against America. If a man loves America the Beautiful and sees this wrecked and ravaged land, the gouged-out creekbed, this fishless stream, he must feel revulsion for the recklessness, the greed, and the barbarity of an industrial manager who would wreck a valley for a bit of cheap fuel.

I cannot believe these men to be wicked, but their folly, their cupidity, their disregard for natural beauty is monumentalized by the mountain they killed. Soon the Appalachian development program will reconstruct U.S. 119 as a major north-south highway and countless tourists travelling between Florida and the Great Lakes will pass their monument. Most of them will blame a great corporation for the despoliation of this lovely corner of America.

The point here is that, whatever the situation may be in the flat coalfields of America, strip mining on steep mountainous terrain is wholly inconsistent with the preservation of natural beauty and the natural balance of life. Restoration to anything approaching the original situation is out of the question. The land is too steep, the rainfall is too heavy, the spoil is too unstable for real reclamation to occur. If the land is to be preserved, if the natural beauty is to

survive, reclamation must occur in advance, simply by prohibiting the ruin. Government can enforce such prohibition, or an enlightened business community—including the men and corporations which own the minerals—can resort to other methods of extraction.

If necessary, they can wait until new techniques make possible their recovery by means which permit the continued usefulness of the land. Our affluent society should not be so hungry for cheap fuel as to purchase it at a cost so dear.

Whether the Appalachian coalfields will be preserved in their ancient natural splendor for the enjoyment of many generations of Americans yet unborn or reduced within the coming generation to a wasteland is a question that addresses itself to this conference. It addresses itself to the boardrooms of scores of great corporations and the consciences of American shareholders. The conventional working of economic and corporate decisions provides a momentum far too big to be matched by local county governments or even State statutes. Only a national conscience and a Federal strength of purpose can effectively meet the issue. And as the destruction spreads across Appalachia, the hills, the hollows, the streams, the fish, and the wildlife of the yet unravaged lands await the answer. And the future will judge the answer as long as there is an America.

Mr. MOTT. I believe that each of you recognize in the comments made by the various panelists the problems that exist and you were told of several solutions: local tree planting through civic conscience of the people living in the area; of total government control as practiced in the United Kingdom; industry recognizing the problem and developing ideas and setting up criteria for its members to follow; Federal, State, and local cooperation in solving the problem, and Federal leadership and research.

These are some of the solutions for solving this complicated problem. We are dealing with an industry that is essential to the economy of the United States, but I am convinced that there must be and will be solutions to this problem.

Questions and Discussion

Mr. DAVISON. Mr. Collins, you said that reclamation costs now are averaging in the neighborhood of \$1 a ton. Do you have any idea what percentage of the pithead price of coal that would be in the United Kingdom, as an average?

Mr. COLLINS. One-tenth of the price.

Mr. PYLES. Mr. Collins is here from the British Isles. We might ask him some more questions. Why in the United Kingdom do you strip for coal? Why don't you deep mine altogether?

Mr. COLLINS. Strip mining of coal relatively near the surface is far more economical than deep mining. It is as simple as that.

STEPHEN COLBY. First, Dr. Bramble suggests empirical observations in the field constitute an in-depth study; this is not true. Empirical observation is only the first step in a long series of steps for in-depth studies. Much further thought is needed to describe in-depth study.

Second, in regards to Route 119 and other highways, at least in terms of recreational values—one can move a highway or use cosmetic measures to control undesirable scenery.

Third, if, when stressing recreation and not pollution control values, the spoil banks are not necessarily unsightly if they are properly planted. In southern Illinois, the spoil banks, on which trees and other things are planted, constitute some of our most interesting landscapes. In some areas, such as central Illinois, the barren spoil banks (by creating contrasting scenery to the beautiful monotony of the cornfields) can represent a highly desirable and interesting feature of the landscape.

Fourth, rehabilitation of the landscape should not be limited to coal mines but should include other works of man; such as gas stations, restaurants, motels, billboards, and any other unsightly blemish to the landscape.

Fifth, with proper planning and by describing what has been done and what is to be done to return the scenic resource to the production of beauty, an explanatory turnout and overlook can partially alleviate the unfavorable impact of unsightly scars caused in resource development such as forest clearcutting and mine spoil banks.

Sixth, for the Congressman, I have one suggestion. Any Federal spending program should not penalize State, local, and private agencies that undertook initiatory compliance (to place a program in operation with non-Federal funds before the Federal Government originates its program) by making grants to those communities who are not foresighted.

For example, Chicago has the best sanitary district anywhere in the world primarily financed through local funds, as are those in

many other cities and towns. Yet, I understand the Federal Government is subsidizing sanitation programs for areas like Huntington, W. Va., and Milwaukee, Wis., that have been notorious in polluting our streams and lakes without regard for the well-being of others.

MR. PYLES. One brief comment. By a study in depth, I mean a team study which would be set up in each State which would be composed of engineers, soil scientists, hydrologists, foresters, or ecologists. We proposed such a study in Indiana. The administration opposed it this year, and it was not approved by the legislature.

KENNETH L. SCHELLIE. I would like to refer to comments Mr. Davison made about the work being done by the sand and gravel producers. They have created, as many of you know, some very fine reclamation projects which have produced some of the finest recreational areas in the country, many of them water-oriented. I would also like to point out that the increasing difficulties of opening up new extractive pits in our metropolitan centers has created some serious problems for the industry.

It has occurred to us that there appeared to be a common ground, whereby the need for outdoor recreation space, open space, active recreation use space, and the needs of industry in producing sand and gravel close to their markets create a common situation of interest, both to the industry, the Nation, and to the people interested in recreation.

Therefore, we have entered into some discussions with the Bureau of Outdoor Recreation regarding a program which will be undertaken jointly by the industry and the Bureau to encourage this type of operation at urban centers, meeting the growing metropolitan need of America, both from the standpoint of a building material and the need for more recreation space at those locations.

MAURICE BARBASH. I would like to address myself to a problem we have had in Long Island for the past few months, where a major sand and gravel concern attempted to win approval for a mining project along one of the most beautiful bluffs overlooking Long Island Sound, in the Wading River area of the north shore of Long Island. The proposal was made then, as has been made by Mr. Davison, Mr. Collins, and other speakers, that the result might be better than the product that nature gave us today.

I have heard this proposal made in many other industrial developments, including the one in an area up on the Hudson River.

I am very disturbed by all the signs that lead to landscaping being restored. Aren't we going to have any of the original landscaping that we have right now? I think it may be high time that the association of sand and gravel firms and the power companies make their own studies as to what natural resources and features we have in this country that should be out of their domain for operation. I think we have to leave some of the original landscaping that we have today. I know that we cannot possibly restore it, once we have used it, to the former beauty it had.

STEPHEN DUNN. We represent and speak for the commercial producers and not the captive producers of the industry, such as the steel companies. I would like these proceedings to show the constructive attitude taken by the bituminous coal industry. They have worked in this field for many years, not only with skilled technicians of National Coal but through our new research laboratory near Pittsburgh, the bituminous coal research center, in seeing the need for intensifying these efforts to keep up with the times. Recently a new organization was formed, closely associated with us, known as the Mined-Land Conservation Conference, of which Mr. Arnold Lamm is the president.

We enjoy working with government agencies and with local groups. This has a top priority in our forthcoming 48th anniversary convention program, and there will be top panelists on this in Chicago, June 13 to 15.

You are all most cordially invited to attend that session.

We have just completed a very important symposium on water pollution, sponsored by Mellon Institute, our affiliate, Bituminous Coal Research, and others, and we are working continuously with land and water use committees and others.

I might say also, we have a new film which shows the work done in the field of reclamation. It is called "Invisible Power of Coal." We hope those interested will see it.

A number of very constructive comments have been made by panel members. You, Mr. Chairman, have pointed out the great need economically for these industries that are affected. Mr. Pyles has mentioned the good work done by industry. Dr. Bramble has pointed out the need for State action and the difficulty of having a uniform Federal law, and how general Federal regulation might be impractical or impossible.

Mr. Stocker certainly has brought out what can be done by private enterprise. This is where we want to intensify our effort. Our good friend, Mr. Collins, whom we know very well, has pointed out very wisely the difference in the factual situation.

ARNOLD E. LAMM. I think panels such as this are very constructive. I think that none of us believe the problem is simple. It is a very complicated problem, and I think that the help of you gentlemen in solving these problems is much to be sought after by the industry. I simply want to explain some of the objectives of the Mined-Land Conservation Conference.

First of all, we have a voluntary problem of reclamation of land, which is very extensive. The program is supplemented by a staff of experts, a technical committee, consisting of ecologists, chemists, soil experts, people who have been in the land reclamation business for upward of as much as 40 years, some of them.

Secondly, another purpose of the Mined-Land Conservation Conference is to sponsor intelligent legislation on the part of the States to solve this problem. We do believe that there are great problems to Federal legislation, because there are such different objections involved, as Mr. Caudill has pointed out. You have a far different situation in the plains of Kansas than you have in the mountains of West Virginia. But we do sponsor intelligent State legislation. We aid and assist those companies that are financially unable to get technical assistance.

I want to thank the members of the panel for throwing a great deal of light on a very complicated and technical subject.

Mr. MOTT. It is my understanding that of the 27 States that are doing surface mining, 7 of them have legislation that in one way or another affects rehabilitation. Some of the States use their laws effectively; in other cases the legislation is there, but it is not effectively used or implemented.

Dr. M. GRAHAM NETTING. A great deal of very fine work is being done throughout the country in restoration. I have no intention of criticizing that. But I have gone to a good many meetings and I have heard people talk about revegetation of spoil banks, who, I am certain, have never sat on a spoil bank on a hot July day.

Much of the planting of tree seedlings by Boy Scouts, by people of good will, is excellent exercise for planters, but unsuccessful because of the species provided. You know that spruces like cool, moist

conditions. Think of the little spruce tree that is put on one of these hot spoil banks. In ten years, it may be 18 inches high. And most of this planting by the way of evergreens is done in a deciduous forest climate where the large-tooth aspen and the black locust may grow 10 feet from seed in two years.

I would like to suggest that the people who are doing research on revegetation take a lead from the highway engineers and blow mixtures of fertilizer, of seed, particularly of deciduous trees, straw and hay on the spoil banks. If a lady gets her shoulders sun burned, she doesn't put a few beauty patches on them. She covers up the hot hide. The important thing is to get a fast cover on the hot spoil banks and then the trees will grow beautifully thereafter. Think of a spoil surface as a desert environment.

Mrs. CONNIE QUINN. We have a strip mining law which I understand is the most strict or the second most strict in the United States. And I believe it is being effectively carried out. We also have what is considered one of the world's largest shovels in our western Kentucky coalfield, and I would like to suggest that the panel make some type of recommendation to control the type of equipment that is being made to use in these strip mining areas. I understand that the firm that has the shovel is now planning one larger than the one it has now, where it can go in and disturb more acres of coal in one day than hundreds of men can do in a month.

I would like to ask Mr. Stocker the question about his planting program on highway screening. Were the trees planted and given by the State? Did they grow their own trees in their own nursery or were they bought from private individuals?

Mr. STOCKER. These were bought by our company.

Mrs. QUINN. I would like to find such an angel in Kentucky.

MARTIN HANSON. I would like to put a question to Mr. Caudill. My city, Mellen, Wis., lies in a valley between two ancient mountain ranges. To the south is the Goegebic iron range, which is controlled by one of our largest steel corporations. The hill and mountains directly south of Mellen have been described as one of the outstanding ski hill and recreational opportunities in all of the Midwest.

Next week a vice president of this company is coming to our town and our valley. The same thing will happen that has happened to your valley. What should we do about it?

I would like to further comment that our local people, because of the economic impact, jobs and such, refuse to do anything, and our State government has just failed to act. So my question is, what can be done?

MR. CAUDILL. Well, if I had the answer, I would be a rich man, but I think the answer will have to be—as distasteful as this may seem to a great many people—at the Federal level. This is a great Federal problem. The people who are pauperized in the process of land destruction frequently wind up on the public welfare rolls, and that is Federal. The mud moves in interstate streams, and that is Federal. And there is simply lacking, at the local level in a great many areas, the necessary land ethic to achieve effective action at the local level or even at the State level, and I can see no real hope for this kind of situation until the land ethic, if there is one, is brought to bear in these communities. That must be, in my opinion, the role of the Federal Government, in one form or another.

LARRY COOK. My job is reclaiming strip mine land, and it has been for the last 20 years.

I want to pay tribute to the U.S. Forest Service, particularly, in my area, through the Central States Forest Experiment Station and to the Ohio Agricultural Experiment Station, to Ohio State University, and Kent State University, and to all of the agencies that have worked with us to find the answers to the reclamation of strip mine land.

I think we have a lot of the answers. I cannot be on the defensive here today, because I can show you thousands of acres of beautiful reclaimed strip mine land.

Unfortunately, we have about 10,000 additional acres every year. No matter how much we reclaim today, there will be more to be reclaimed tomorrow.

MR. MOTT, I agree with you that man, in his genius, has constructed some tremendous equipment—210-ton shovels—but he has not discovered how to grow trees faster.

This is a problem—time. If we have the time and the money, we can properly reclaim strip mined land.

MR. MOTT. The public feels that this is an urgent problem and that we must get on with solutions as rapidly as possible. Maybe we should be doing research on how to produce trees that will grow

faster than we have ever grown them before. I don't think time is going to wait for us. We will have to move faster.

Mr. COOK. I hope, in order to obtain beauty in a short time, we do not throw away the value that lies in these lands that a little time will enable us to realize. We can reclaim these lands to tremendous value as well as beauty if we are given sufficient time to accomplish it.

WILLIAM VOIGT, JR. One comment, and then one question, if I may: It was ten years ago, Mr. Pyles, this month, that we spent a month in the Ohio country that Larry Cook just talked about, looking over some well reclaimed land, and some that was not well reclaimed.

I feel that we should consider soil textures, local soil and climatic conditions, as Dr. Netting was saying, when we go in to do the reclaiming job. But the big problem and the question that I would like to put has to do with the areas that have been disturbed in years past by operators who are long dead or departed. I believe it was a fellow countryman of yours, who some 300-odd years ago in a book called "The Compleat Angler," wrote, "What is everybody's business is nobody's business."

What are we going to do about this nonreclaimed land, unreclaimed land that is now everybody's business?

Mr. MOTT. Our panel has discussed this problem in its work sessions quite extensively, and we recognize that the abandoned or orphaned land presents a special problem. We will make a specific recommendation with regard to action that should be taken in rehabilitating orphan or abandoned coal mine areas. We believe the recommendation makes sense and we will present it at the general session.

GEORGE SELKE. We have just gone through a series of experiences in two States, and I would like to call your attention to them. They deal with the matter of reclamation. I wonder what we are going to do when nature begins to destroy some of the beauty of the land because of some indirect acts of man. I sometimes think that nature does this without any help of mankind. I am thinking of the floods of the Missouri and the floods of the Willamette and the Columbia as well as the hurricane of 1962, and so on.

Mr. PYLES. I suggest one solution is to keep the towns and industries out of the flood plains. That would be the easiest way.

Mr. SELKE. That doesn't solve the problem for the others in the valley.

Mrs. RALPH CURTIS SMITH. We have a problem that I would appreciate some information on. We have a well-established retail coal company in the city, right in the center of the city. We have a great deal of coal-dust that emanates from this coal plant. What kind of wetting compound is there that is practical?

Mr. COLLINS. I can say that the wetting of coal dust is a very difficult problem. Chemical wetting agents are available but expensive and not very efficient. Probably the best way of dealing with the dust nuisance is to have adequate water sprays as near to the source of the dust as possible.

DAVID BROWER. I think we are concerned quite a bit about the efficiency of coal mining, because we would rather see, for example, coal used for power than dams in Grand Canyon. But we are also mindful of the kind of reclamation that took place in some of our own California land, where a century ago, we took the gold out. The only way we reclaimed the spoil piles was to expand suburbia over them, beyond Sacramento, toward the Sierra Nevada.

In this kind of struggle, there is a mining operation that goes on in our redwood country. The soil slips down in the canyons. There is no reclamation yet attempted there.

We wonder sometimes what chance there is to tell the public what its choice is before the step is made. Before we take redwoods off the slope and let the slope deteriorate, how much more would we have to pay for the redwood in order to have a good slope left? Before we go ahead and disrupt a piece of land with strip mining for coal, how much more would we have to pay per kilowatt-hour of energy, if it is going into power? How much would we have to pay for a pound of steel going into the heavy machinery needed to put the soil back where we can and replant on it according to the best instructions of Mr. Netting?

The public often doesn't get the choice to leave the land unspoiled and pay the extra cost for mining. Where we do mine, should we restore and put that in the price, or should we just let it lie and have it as a perpetual and long-lasting eyesore? I think this panel should recommend something about this, to make sure the public sees what the choices are.

L. E. SAWYER. My work for the past 21 years has been almost exclusively confined to reclamation, principally in the State of Indiana.

I think the members of the panel have brought out very graphically the extreme variation in the different parts of the country in mining and in the reclamation problem. We have had a definite program of reclamation in Indiana since 1926. As a result of that program, less than 5 percent of the land that has been disturbed by mining has not been reclaimed. That is a natural lag. We have to let the ground settle. Nature requires time to break down the rock and shale before we have a planting site. We know what to plant. We are not planting spruce, as the man said. We have adapted our species to the different sites that we are dealing with. We can't apply the same practice throughout the State. We are confined only to the southwestern corner of the State. We have to use different mixtures on different sites.

The same thing applies in many parts of west Kentucky, with which I am familiar, and in Illinois. It is impossible to apply the same law and same practices uniformly over the entire State. They need to be tailored to fit the type of material you are dealing with, whether it be material that can be restored to agricultural use or whether it is land that should be reforested or land that should be developed for homesites.

I would like to assure you homesites in Indiana are selling today for more than the companies paid for the land when it had the coal underneath. It is simply because we have nice bodies of water. People are crazy for water and they are paying fantastic prices for that land.

Dr. STEPHEN SPURR. I think it is obvious to all of us, but the record should show, I think, that the elements of the landscape should include more than the topography and the soil: They should include the vegetation, the forests, the water, and the structures raised by man. Although this panel has concentrated upon the very important part of the reclamation of disturbed land, I think that the topic is sufficiently broad that we should recognize that there are equally serious and in many cases much larger areas which call for the restoration of vegetation that has been destroyed by fire, by overgrazing, or by overcutting; which call for the restoration of water bodies, whether rivers, ponds, or lakes, that have been destroyed by mismanagement; and the restoration of the ravages of human

structures that are no longer needed, that are antiquated and that can be removed. These are also part of the elements of the countryside, and they should, sooner or later, deserve attention equal to that given the important topic of this panel.

IRVING LIKE. I have a question for those members of the panel that represent industry.

Where you have a reclamation problem of the first magnitude and where private industry, local initiative, or State government is unable or unwilling to act within a reasonable period of time, are you willing to accept the proposition that there be legislation enabling the Federal Government to act as a guarantor of performance?

Mr. DAVISON. I am not sure I understand what you propose.

Mr. MOTT. I believe he is saying that if private industry doesn't carry out this major reclamation program, the Federal Government should do so. Is this what you said?

Mr. LIKE. The point is that Federal power will be available and provided for in the legislation to be exercised within a reasonable period of time in local situations where local initiative does not carry out the same objective.

Mr. PYLES. Under effective State laws, the State has police power. It can require bonds, which amount to sometimes \$1,000 an acre or more. The States also have other police power. Every strip mining operation in the five leading States must be licensed, and these licenses must be renewed each year. I don't know about New York State, whether this is the operation you have in mind. But the States have the power; the Federal Government doesn't exercise it.

Representative OTTINGER. I think we were agreed, though, there have been some cases where interests were involved that were so great that the State couldn't adequately cope with them. There are situations in which Federal standards should be established.

I certainly very strongly subscribe to that view. I think you have to have some mechanism sufficiently flexible to meet different situations in different States; that we have a vehicle available along the lines of the Land and Water Conservation Fund, where the Federal Government would lay down certain basic standards and the States would come in with specific programs to meet those standards.

BENJAMIN LINSKY. Two points: One, a comment, emphasizing the point that was brought up before by one of the members of the audience. In flatland areas such as Detroit where I grew up, it may be of value to develop and reclaim quarries and instead of stopping at grade, going up and developing some hills which would have scenic value as picnic areas.

Something comparable has already been done, at Rouge Park, where a solid toboggan slide is built of rubbish and makes a nice picnic hill in the summer.

The second point, I think, came out of the audience response to your panel. The economic choices, as to the costs, ought to be presented much more often in terms that are realistic to the consumer, such as the added amount on your electricity bill, for the average family per month. Added cost-per-ton of coal for cleaner air or restored mining surface means nothing to him; he cannot translate it without a good deal of instruction or research.

Statements Submitted for the Record

SAUL B. COHEN. I suggest that the panel consider recommending the establishment of a National Spoil Reclamation Bank, to grapple in a bold and imaginative way with the major problem of coal spoils and other mine tailings. Punitive measures in State codes that levy fines are inadequate to the task. In West Virginia, fines of \$25 per acre are hardly a deterrent to the owner, when spoil reclamation may cost \$250 per acre. A Federally sponsored and funded Spoil Bank, organized to match owners' reclamation investments (which, in turn, can be provided with tax benefits), seems to offer the strongest and perhaps the only assurance of solving this aspect of the rural landscape reclamation problem.

MILO W. HOISVEEN. Criteria regarding the leveling of spoil banks and abandoned channels created through the construction of drainage canals and river channel changes have improved greatly in recent years.

It can be further improved to remove ugliness. Areas where spoil piles exist should be leveled to blend in with the topography of the existing land which will permit seeding to useful purposes and thereby eliminate a noxious weed problem area. Channel straightening has in many instances been a necessary adjunct to eliminate floods; however, in many instances the abandoned segments of the channels have

not been leveled which generally leaves a mosquito-infested bog which is usually most unsightly.

Agencies affiliated with the State and Federal governments responsible for such construction should be urged to take immediate steps to establish criteria to improve construction in this regard. They should also care for such past performances on a retroactive basis where such work has been performed as a part of their responsibility.

ARNOLD E. LAMM.* Adequate provision was not made for representation by the surface coal mining industry at the panel discussions during the White House Conference on Natural Beauty, particularly since most of the emphasis in the discussions on land reclamation was directed toward reclamation of the strip mine areas.

In the hope that we may be able to have our side of the story heard and included in the conference report to the President, we submit the following statement:

All parties must recognize that the coal mining industry, including the surface mines, is an essential contributor to our economy. Low-cost surface mined coal in most cases fuels the electric generation which has provided this country with its greatest competitive advantage over the low labor cost competitors from other areas.

Dr. Julian W. Feiss of the Department of the Interior, in a paper before the Council of State Governments on April 13, 1964, said "Mining in one form or another has existed for many thousands of years and will continue to exist as long as man occupies this planet." At another point in this same address, Dr. Feiss said with respect to coal mining, "If it is necessary to strip off 60 feet of rock or overburden to reach a 5-foot seam of coal, this overburden is waste. There are times when it is advisable to return the waste to the excavation; there are other times when this is difficult."

The surface coal mining industry has long recognized the need for reclamation of mined land. In fact, the first reclamation projects were inaugurated more than 40 years ago. Since that time thousands and thousands of acres of marginal land have been mined and then converted into multiple-use land, the value of which is many dollars greater than the original land.

The problem of land reclamation in the coal industry is magnified out of all proportion to its true relation in the natural resource picture. The Tennessee Valley Authority, in a publication issued in 1963,

*This is an extension of the remarks made by Mr. Lamm during the panel discussion.

pointed out that the total land area of the 22 States in which surface mining is carried on is 770,747,000 acres. Of this total, according to TVA, only slightly more than 500,000 acres have been disturbed by surface mining operations. This represents only 65/100 of 1 percent of the total land area of these States. By comparison, in these same 22 States, the total acreage affected by highway construction was 25,976,000 acres or more than 50 times the surface area disturbed by mining. Whereas little of the land disturbed by mining was productive agricultural land, a great share of the land converted to highway construction had previously been agricultural land.

In the same vein, the Department of Agriculture has estimated that of all the area devoted to crop production, 1,382,000,000 acres are in need of immediate conservation treatment. This is almost twice the total land area of the 22 States in which surface mining is practiced. Yet a great percentage of the publicity and criticism is directed to the surface mining industry and little or nothing is said about the highway areas or the farming areas that are in greater need of reclamation attention.

Despite the insignificant effect on total land area, the surface mining industry has not minimized its efforts to develop effective and efficient programs of land reclamation in the mining areas. A great deal of time and money has been expended by the industry in developing and expanding its reclamation programs on a voluntary basis. Studies and research by the industry and by cooperating Federal and State agencies have continued to improve the types of reclamation practices employed.

Through the Mined-Land Conservation Conference, a voluntary organization of the responsible surface mining companies in the United States, a code of practices has been subscribed to by the members of the MLCC, which among other things provides for the following:

The reclamation of all land affected by the mining operation is the responsibility of each operator.

Restoration of mined land to its most practical and productive use within the shortest possible time is basic to a sound conservation program.

All mined land should be seeded or planted to produce vegetative cover as soon after mining as practical.

Mined land should be devoted to the highest and best possible uses compatible with the uses of adjoining land.

Reclamation of mined land, including planting to grass or trees should be done on a planned basis under technical guidance of personnel trained in this field.

Reclamation programs should be carried out so that the final use of the land will not appreciably reduce the taxable value of the land below the valuation which the land carried before mining operations commenced.

Mine owners should not be content with a minimum of reclamation. They should encourage voluntary participation in sound reclamation practices by all operators in their areas.

The surface mine industry believes that where regulation is desirable, it should be the responsibility of the State or local agencies. This thinking results from the practicable knowledge that conditions of the land subject to reclamation are so varied that no single formula can be established. Endorsing this contention, the Tennessee Valley Authority said :

No two strip mines are the same and rarely are two parts of the same mine identical. The proportions of stone and soil vary greatly, and for any particular spot, the proportions change with weathering and erosion. Acidity varies sharply within short distances.

We feel that conscientious effort is being made by the industry to prosecute a progressive and productive program of land reclamation. Great forward steps have been taken; however, much more is in the future. It should be realized that in many cases of complaint of denuded soils in surface mining operations, the time element required for the weathering process to make land suitable for vegetation causes the barren appearance. However, this will be rectified within a short time to produce verdant growth in most cases.

On the subject of reclamation of strip mine banks, the Department of Agriculture, in one of its recent reports, states:

Most authorities advise delay of planting until the banks have settled and severe erosion has had a chance to run its course.

The surface coal mining industry accepts and honors its responsibility for the reclamation of the lands mined. The industry has proven by past accomplishments that it is capable of solving this problem and affecting a result that will be a credit to the industry, to the communities and in consonance with the aims and purposes of the White House Conference on Natural Beauty. We only ask that in carrying forward this program our work be appraised and judged

fairly and accurately by all segments of the population—government agencies, the press, and the general public.

ELDRIDGE LOVELACE. Preservation of natural beauty must start with a reverence for land. When mistreated, the land fights back with results that are more than ugliness. Mud in the canyons of Los Angeles is one example. Rampant erosion that occurs in the Peoria area whenever the vegetative cover is removed from steep slopes of sandy, gravelly soil is another. There are hundreds of examples around every growing city.

By zoning we regulate what goes on the land. Why could we not regulate what is done with the land and require that land be treated reverently, carefully and judiciously? While they would vary from community to community, it is possible to set forth standards for the preservation of native plant material, for the intensity and character of urban use in relation to land slopes and to the character of existing tree growth. The bulldozer approach to urban expansion could be straightforwardly prohibited by local law. There is no reason why an individual should be allowed to destroy ground forms, plant growth, or wildlife on his property whether he builds anything on it or not. Some areas such as very steep slopes, drainage courses, and flood plains should not be built upon at all. Where an absolutely essential project has to disturb the landscape the regulations could specify the restorative measures to be put into effect.

Model ordinances to accomplish these purposes should be prepared under the sponsorship of the HHFA with assistance of committees formed for this purpose from the American Society of Civil Engineers, the American Society of Landscape Architects, and the American Bar Association. Successful enactment and enforcement of such legislation in a few communities on an experimental basis could then be followed by requiring it as part of a workable program that should be the prerequisite for Federal grants.

A few decades ago minimum standard housing regulations were almost unknown. Now they are commonplace. "Reverence for Land" regulations could have a similar history and bring an even greater benefit. Prevention of misuse of land would be preferable to the expensive and frustrating experience of trying to correct the mistakes later on. Surely there is more than enough public interest involved and a significantly great effect on the public welfare to warrant the extension of the police power into this field.

CHAPTER 13

THE UNDERGROUND INSTALLATION OF UTILITIES

3:30 p.m., Monday, May 24

The Chairman Mr. CISLER. In our deliberations prior to our meeting this afternoon, we decided to divide our panel presentations in order to recognize the marked distinction between overhead and underground installations in relation to low voltage and high voltage; the responsibilities of various regulatory bodies; the participation of the equipment manufacturers in the subject; the matter of high-voltage transmission, which is quite a different matter than that for low-voltage distributions and service installations; and finally, the need for long-range planning, which to me is very important, indeed.

We must make the distinction between overhead installations of the low-voltage distribution circuits and the underground circuits specifically serving the same purpose. There is a great distinction between these and circuits which are for high-voltage transmission, both overhead and underground, which have an entirely different purpose, and which are governed by entirely different techniques and technology, economics, and other matters.

Mr. NELSON. A revolutionary change has taken place in the pattern of installation of low-voltage electric distribution lines during the last few years. Not all of us in the industry, and certainly few people outside it, are aware of the extent of this change or its significance. I think I can best illustrate what is happening by using as an example my own city of Los Angeles.

Members of the Panel on The Underground Installation of Utilities were William M. Bennett, Walker L. Cisler (Chairman), John Dyckman, Ludwig F. Lischer, Rod J. McMullin, Samuel B. Nelson, Joseph C. Swidler, and George L. Wilcox. Staff Associate was Ted Mermel.

In 1962 only about 20 percent of new residences were served from underground facilities. By 1964 this had increased to almost 50 percent and by the end of this year it will undoubtedly exceed 60 percent. The change in the pattern of service to new residential subdivisions has been even more spectacular. In 1962 less than 10 percent of all new subdivisions were served underground. Right now 60 percent are going in underground, and by the early 1970's, this should approach 100 percent.

A similar trend, although not so radical, has been experienced in other phases of our distribution system.

The reduction in cost of underground—as much as 60 percent in some areas—has been a great factor in making this change possible. The primary motivation, however, which started this revolution and has maintained its momentum, is the increasing desire of people to raise the standard of beauty of their own environment.

I have painted a very rosy picture and one that is surely consistent with the purpose of this meeting in Washington. This raises in your mind, as it has in mine, a very logical question and that is: if all of this underground is going in, how does it happen that we still see on the face of America so many poles and wires?

In the answer to this question lies the two major problems, which we are faced with.

1. The improvement of the appearance of overhead lines where underground can't do the job, because of load density, topography, soil condition, or other factors. In other words, improving the appearance of those facilities that must go overhead now in this interim period.

2. The conversion of existing overhead systems to underground.

Much progress has been made on the first of these problems, as a result of a comprehensive program of research and development involving the manufacturing as well as the utility segment of our industry. New materials and methods have made outstanding contributions to the aesthetic impact of these essential overhead facilities. Examples of these are metal poles of graceful design, without cross-arms, serving the dual function of street lighting and distribution with service wires underground; light-colored poles without cross-arms and with bare wires on side-mounted insulators; low silhouette designs deliberately planned to blend with the background of trees and buildings.

In the west we are acutely aware of this problem and are actively working on methods of solving it.

Late last year a Utilities Appearance Committee was organized by 24 utilities in five western States. This committee is coordinating the approaches and proposed solutions of all participating utilities in an effort to arrive at standardization of designs which are both aesthetically and economically sound.

The problem of converting existing overhead districts to underground is a more difficult one to solve. Circumstances vary widely. In the older areas, absentee ownership and low income result in a general lack of interest in the aesthetic aspect. Left alone, the conversion would probably come about automatically due to change in land use. This could take many years, and I'm not sure it's the best answer. It seems to me the solution in these areas requires the cooperative effort of the property owners, the community, and the utility. It may well be that more flexible improvement district regulations are also indicated.

In other less depressed areas, the solution should be easier, but even here, despite an active program on the part of the utility, very little conversion has been made. Perhaps here, too, more flexibility in the formation of improvement districts would help.

I might make a comment on an article which appeared in the May issue of *Public Power*, which told about an experience that the Sacramento Municipal Utility has had on new subdivisions. They offered the underground facilities, over an 18-month period, at no extra cost to subdividers and their experience was so good that they have extended this for another 12 months.

The situation is different in different parts of the country, and this is only one utility which has stepped forward and actually provided the underground installations at no extra cost. The general practice is to have the subdivider pay for the difference in the cost of overhead over the cost of underground, and this cost varies as to topography and location of facilities.

Mr. LISCHER. I think most electric utilities are becoming increasingly aware of the need to have their facilities attractive as well as low in cost. While considerable progress has been made in certain areas, much remains to be done. The single, biggest problem is how to do it economically so that it will not be an impediment for further rate reductions for our customers.

In the distribution systems to our homes, ten years ago the cost ratio of going underground compared to overhead lines was 10 to 1; today in some instances, it is 1½ to 1. Much has been accomplished

by equipment suppliers, by the utility engineers who are looking for new methods, by work with the land developers, with contractors and, in our own case, with telephone companies for sharing of costs. We have been able to achieve this reduction in cost and I am sure that we can make further improvement, so that in the very near future we can have underground service to new residential developments competitive in cost with overhead service because of the progress that has been made in driving down costs. Last year in our own Chicago area, a little better than 50 percent of all the new residential subdivisions went in with underground service.

If you are talking about conversion of an existing area in a city, this becomes an entirely different problem. There the disruption that would take place, the cutting of trenches on lawns, the tearing up of streets and the existence of gaslines, sewerlines, waterlines, and so on, raise the cost. You don't have a 1 or 1½ to 1 ratio, you can have a 5 to 1 or 10 to 1 ratio, and the home owner himself would have to change the facilities at his house to accept a wire coming in underground. We have estimated that service entrance facilities thus located as compared to coming in overhead, might run about \$300 for the individual home owner.

That part of the problem is much, much tougher than the other, and much work needs to be done.

In downtown areas, in most cities of any size, you do have underground and, in most instances, this is the only acceptable way.

Now, when we talk about overhead transmission, about high-voltage lines that have to be suspended by long strings of insulators from large poles or towers, we are talking about an entirely different problem. Here we are playing in a different size ball park. We are not talking in terms of thousands of dollars or millions of dollars, we are talking billions of dollars in differences in construction ratios of underground cost to overhead. Those are in the order of 20 to 1 or even higher than 20 to 1.*

Mr. BENNETT. I am a State regulator and I am exposed to the public. Generally speaking, the public in my State wants undergrounding. This will be accomplished by the action of the States and localities. It is basically not a Federal program, because of the nature of our Constitution.

*Mr. Lischer has submitted a statement on electric transmission lines which appears later in this chapter.

We have witnessed the Woodside controversy in California and the Bodega Bay controversy. The question is how do we solve this. The great role that regulation can play is in acceleration. We understand that utilities must make a fair return, no question about that. But my view on rate reduction is that while it is not the function of the ratepayer to supply capital to the utility, study should be made of the most beneficial manner in which cost savings may be translated into permanent benefits for consumers. This may require an examination of the traditional manner in which rate reductions have been treated. Is it better to translate the rate reductions into something of permanence such as an aesthetically pleasing underground line? I will make the decision as a regulator that the public in my State is ready for the exploration of such notions as to rate reductions.

We had some recent substantial reductions of \$24 million in our electric utilities, and these went to rate reduction. It would have been better if they had gone by way of beauty or permanent assets. It enhances the neighborhood and improves it, and tax assessors take recognition of the fact that undergrounding is aesthetic, beautiful, and gives value to property.

In California, because of the great growth of our State, we are able to have rate reductions, and we hope that this shall continue. For those areas which do not have that spectacular growth, where the utilities are perhaps locked in, I have proposed in the formal paper I have delivered here,* but which I am not reciting now, that possibly the Federal Government, through some tax subsidy or benefit or program, could supply the necessary capital to do this. We have to measure our values in our society. We puncture the earth to bring out oil and gas, and we have a depletion allowance which furnishes incentive. I don't think there is a great deal of difference in terms of social values, if we gave some kind of a subsidy for puncturing the earth to put a utility facility underground. We have an overabundance of oil in this country. If we mean what we say in this conference and are determined to meet the problem of costs, this would be a way of doing it. You should bear in mind in California a jury recently awarded severance damages by virtue of the placing of an overhead line and the severance damages were awarded in a substantial sum and made the construction of underground just about as cheap, so to speak, as overhead.

*Mr. Bennett's formal statement is printed later in this chapter.

One last thought in the brief time I have. There must be public controls of routes which utilities select for powerlines. There is just as much aesthetic ability in public officials as there is in management. We are proposing in California to do this with freeways and I say the time has come when we must do it with the long lines of public utilities.

I happen to think we already have the power and most State commissions have the power, which is found within the phrase "public convenience and necessity." This conference is an eloquent testimony to the fact that the rate-paying public and the public generally are willing to pay a little bit more and that they want these controls. I am certain of this, so the ideal may be realized.

Mr. WILCOX. Both the electric utility and the electrical manufacturing industries for many years have been exceedingly conscious of the need and the desirability of contributing to the attractiveness of residential communities and urban areas by improving the design of utility facilities or making them invisible to the greatest practical extent.

The problem is not always susceptible to easy solution, either by reason of substantial cost factors involved or by the increasing complexities of transmitting large blocks of power to satisfy the load densities of rapidly expanding urban developments.

The most significant contribution to the enhancement of the appearance of our neighborhood has been underground distribution of residential power, and it provides the most potential for early exploitation.

A substantial advance has been made in the growth of homes served by underground residential distribution. In the past three years, the number of new underground residential connections increased from 20,000 to 68,000 in 1964. Our forecast for 1965 is 96,000 new installations.

These gains are being achieved as a result of the pioneering efforts of a number of electric utilities and manufacturers through innovation, ingenious use of new materials and new methods, and a determined attack on cost differential between underground and overhead distribution of electricity.

The progress in reducing the differential in cost has been from \$450 per lot in 1950, to \$280 in 1955, to \$175 in 1960, and in 1965, to \$120. We see a further reduction to a \$75-per-lot differential through the adoption of other opportunities for savings which are generally available to us now. I don't want to burden you with technical details, but I am suggesting such possibilities as the use of aluminum low-voltage conductors rather than copper, radial laterals instead of loops, elimination of high-voltage switching at each transformer, more compact and lower-cost transformers, and use of random lay cables in the same trench.

TABLE 1
Typical URD costs

URD component	Construction costs, dollars per lot	Percent of total
Trench and backfill.....	\$20	7.4
Primary cables and terminal connection.....	45	16.7
Secondary cables and service pedestals.....	50	18.5
Transformers.....	75	27.7
Transformer pad.....	35	13.0
Services.....	45	16.7
Total.....	270	100.0

Variables

Rocky soil.....	+\$25.00
Primary in coilable duct.....	+35.00
Secondary in coilable duct.....	+15.00
Services in coilable duct.....	+35.00
Perimeter instead of back to back layout.....	+75.00
Vault mounted system instead of pad-mount.....	+16.00
Radial laterals.....	-12.00
Aluminum low-voltage conductors.....	-11.00
Eliminating high-voltage switch.....	-8.00
Random lay cables.....	-6.00
Low cost transformer.....	-6.00
URD evaluation:	
Reliability and tree trimming.....	-22.50
Eliminating joint pole use.....	-12.50

Furthermore, the difference in cost can be reduced again—to \$40 per lot—if the utility evaluates less tangible features, such as increased reliability, elimination of tree-trimming costs which is a

factor in overhead lines, and the additional costs to the utility if telephone lines go underground while power lines stay overhead.

Another pertinent factor to be taken into account is the added value of property with underground installations. Mortgagors, realtors, and builders evaluated the worth of underground construction in a recent survey on the West Coast as follows: The value added by mortgagors was \$150 per lot, \$100 per lot by realtors, and \$80 by builders. Thus, it would seem that, in addition to aesthetic values involved, real estate with underground distribution lines is a good buy for the builder-developer of a new subdivision.

However, it must be kept in mind that the economics of underground residential distribution is subject to many variables—many more than might appear on superficial analysis. Table 1 is a cost analysis for a typical new subdivision. As you can see, the costs of an installation are based on such items as trench construction, types of primary and secondary cables and their connections and service pedestals, the transformers and the number of customers per transformer. The total cost in this example adds up to \$270, which is about \$120 more per lot than the present average of overhead costs.

But, in the underground construction, other variables are encountered. The soil itself can make a difference, particularly if it is rocky. So can the subdivision layout. The other variables come within the realm of judgment. Each utility will make what it believes to be the best compromise between the economics of the installation and such factors as reliability, safety, its own operating practices, and—of course—the appearance, or aesthetics, of the installation. One factor in appearance is the necessary transformer.

[Mr. Wilcox's statement was accompanied by a series of photographs of the devices and installations which he here describes.]

The most common system employed today is the pad-mounted transformer. Westinghouse has given a lot of attention to the design of its pad-mounted transformers to make them clean and unobtrusive in appearance. But they must still be stationed above ground somewhere in the neighborhood.

An alternative is a compact pad-mount, much smaller and much less obtrusive and easily concealed with shrubbery. But it does sacrifice some of the operating flexibility provided by the larger transformer.

A design which we think contributes most to the clean, attractive appearance of a residential street we call the Somerset Design, and

it houses a fairly standard transformer in a below-surface vault, concealed by the base of a street light.

If street lighting is not used, the vault can be covered at ground level by an almost invisible street grating.

Looking further into the future, we see the possibility of a direct-buried transformer, with which several utilities and manufacturers are experimenting at the present time.

Let me emphasize that I have been talking about underground distribution for new residential subdivisions, in which the use of underground construction is economically feasible. Replacement of existing overhead powerlines with an underground system is still too expensive to receive anything but token consideration, simply because of the tremendous costs involved in taking down existing lines and attempting to install underground lines in built-up areas with paved streets, concrete sidewalks and a tangle of existing waterlines, sewers and buried construction of various sorts.

Also, while the cost-gap between underground and overhead residential power distribution has narrowed to a point of practicality, the cost of underground transmission is prohibitively expensive for the vast majority of high-voltage, high-capacity transmission line application. Present 220 and 345-kv. underground cable transmission is many times the cost of overhead transmission, even though in many situations it must be used because of prohibitions against going overhead through congested metropolitan centers.

Cable circuits have much lower limits of power-carrying capability than overhead circuits. For example, a 345-kv. cable can carry up to 500,000 kv.-a. effectively for distances of up to 15 miles. For greater distances, additional equipment is required. Underground systems of the future may require transmission capabilities in excess of 2 million kv.-a. for 25 or more miles.

One solution is to improve the power-carrying capacity of the cable. Another possible solution, looking to the future, is suggested by our engineers who are exploring the use of pressurized gas as the insulating medium with the conductor being supported inside a pipe by appropriate cylindrical insulators.

Three 12- to 14-inch pipes could operate at 345,000 volts and carry up to 1,500,000 kv.-a. for distances up to 300 miles. This would provide three times the carrying capacity now possible with conventional cable systems, for 20 times the distance. We have labeled this the Pressure Insulated Piped Electrical System, and we have already made an urban substation layout utilizing this system

which would be a significant innovation and a most worthwhile contribution to landscape attractiveness. This design would take up only one-twentieth of the real estate space required by existing substations. This small, compact substation would be completely enclosed, and all of the live parts of the substation would be insulated with pressurized gas.

This design eliminates contamination, radio influence and lighting problems. As in the case of point-to-point transmission application, this substation would be considerably more expensive in first-cost than a conventional open-bus substation. But where space and land values are important considerations, the added cost would be offset by the inherent advantages, both practical and aesthetic, of this design.

Again attacking the problem of increasing underground power-carrying capacities, Westinghouse engineers are also looking to circuit transmission utilizing conducting material which is refrigerated to a cryogenic temperature of -450° F. Such a superconducting transmission line might be constructed with a center region containing two superconductors and liquid helium flowing from a refrigerator. Surrounding the center region would be multiple radiation shield thermal insulation. The very high current which can be achieved with this system would permit the use of low voltages of 13,000 to 25,000 volts, such as those employed in large generators and distribution systems.

These are but a few of the advanced concepts which can contribute to the objectives under discussion here today. They are evidence of the possibilities ahead of us and also are evidence of the keen interest which the electric utilities and the electrical manufacturers have in enhancing the appearance of our residential communities, of our cities and of the Nation as a whole.

Major research and development programs will be required to implement these ideas and to translate designs into working realities. Large expenditures will be necessary to support such research and development. I would like to suggest a thorough evaluation of the problems and of the potentials as the basis for a possible support program in the form of research and development funding by the electric utility industry.

Mr. SWIDLER. Standards of beauty are not eternal; each generation develops its own. I think that public administrators and the electric utilities industry must accept the standards of beauty which

prevail in the Nation and the various communities rather than interpose their own. And if, in this country, the people in any particular area think that overhead transmission lines are unsightly and that we should make a strenuous effort to eliminate them from the landscape, I think this becomes the challenge for the industry and for the people associated with the industry.

Nevertheless, I think we might get this problem in perspective. For practical purposes, I think the distribution problem is well in hand. The transfer of small amounts of energy for short distances at low voltages presents no great technological or economic problem at the present time. The problem of heavy transmission lines is different. I am talking about transferring large amounts of power long distances at high voltage. And this presents very serious problems.

Electric transmission towers are neutral in their effect on the environment. They produce no contamination and they have no cumulative byproducts. Sitting here and listening to the previous panelists discussing the results of surface coal mining and the problems of contamination which result, I realize that this is a high priority problem which, in comparison with the transmission line problem, will be a low-cost problem to resolve. The problem of electric transmission is the other way around. The towers ultimately could be removed. They do not harm the landscape. They hurt no one while they are erected and in operation. I think they present a relatively low priority problem and yet one that requires truly enormous amounts of money to solve. You could solve almost all of the problems, all the other problems of natural beauty which have been discussed in this whole conference for only probably a part of the money that is involved in undergrounding the electric transmission systems in this country.

The problem arises, if I may speak about the technology (I am a lawyer and I say this on what we call information and belief), that when you transfer power on a metallic conductor, you generate heat. In the outside atmosphere, this is no problem, and at low voltage for short distances, this is not much of a problem. But when you take that line and try to put it underground and bury it—which is the ordinary desire of people who don't like to look at the transmission towers—then you have a problem of dissipating your heat underground. This problem is aggravated by the fact that you are dealing with a very dangerous voltage so that you have to insulate your conductor.

Since you cannot readily dissipate the heat, the heat tends to build up to a point of destroying the electrical insulation. I am talking now about present technology, and not about the advanced systems that Mr. Wilcox described here. The ordinary insulation presently used is simply oil-impregnated paper and the cable is immersed in an oil bath held in a conduit.

Now, in order to move the current along, so much heat is generated, and the heat increases on a geometric basis with distance and volume of current, so that for a 25- or 30-mile stretch, you would get so much heat built up for nonuseful purposes that no useful power could be transferred.

This means that, as a practical matter, in present technology a long underground line is just not a very useful line to take care of the great responsibility of the industry to move large blocks of power for long distances.

There is no fixed ratio of costs underground as compared with overhead construction. In the present technology, the ratio would vary from a minimum of several to 1 to 20 or even 50 to 1, depending on the length of the line, its capacity, and other factors. A broad program of substitution would require drastic upward revision in power costs, on a major scale, perhaps on the order of half as much again as we are paying. And I think we are presented with the question, is it worth it on any broad scale?

In practice, if undergrounding were required for all new high-voltage construction, the Nation would be compelled to revert to isolated generating plants within or close to metropolitan areas, in order to minimize the transmission investment. This would entail great sacrifices of economy in power transmission operation as well as accentuate the air pollution problems that confront our metropolitan areas today. In my judgment, this would not be progress, but retrogression.

Now, Mr. Wilcox has described to you many promising possibilities through radical improvements in technology. There is much the industry could do, both to improve the existing technology and to develop these breakthroughs, and I think they will come. I think undoubtedly in another generation, perhaps much less, we will get the kind of ratio of costs in transmitting large blocks of power for long distances that has now been achieved by the industry in distribution. This is what we should press for, to advance the technology as fast as it can possibly be done, so that we can bring closer

the day when people can look upon a landscape free from transmission towers, but without paying an exorbitant cost for that freedom of view.

One thing you must keep in mind is that, unlike the problem of distribution where you can ask the home owner to share in the cost of improving his home by putting the distribution lines underground, it is very difficult to make a fair allocation of the costs and burdens of undergrounding transmission lines, because a relatively few landowners may benefit, but hundreds of thousands or millions of power consumers may be picking up the tab. I think not only the landowners, but the power consumers should be consulted.

I have heard landowners say, "It is worth it. I am willing to pay a few cents more for electricity to get rid of the towers." They say this even though the company involved is not the company that serves them with electricity. They say this even though not only they, but millions of other power consumers, would have to make a contribution—a large contribution, not a few pennies—to spare them the necessity of looking upon transmission towers.

I think we can all work toward a solution to this problem. In the meantime the industry should do everything possible to minimize adverse scenic effects of overhead transmission.

The Federal Power Commission recently created an advisory committee on underground transmission for the purpose of surveying all the possibilities of the present technology, and of suggesting how we might press for improvements in the future. We expect that report before the end of the year. I think it will make a substantial contribution to advancing the day when we will have freedom of choice in the kind of transmission without severe economic penalty.

Mr. DYCKMAN. I think there has been, in all of this discussion, a remarkable neglect of the planning perspective. I hope that I can speak as a planner, if not as an expert on utilities.

It seems to me that with remarkably few exceptions the issues which we have been discussing or have heard being discussed this afternoon take as given, the entire present pattern, both of the distribution of customers and the distribution of services. It seems to me, this is not at all a necessary state of affairs.

I don't want to paint a picture for you of an entirely new system today, because I don't know now what the new system will be like. I just want to point out that the present one is changing very much.

When I say that it is changing, I would like to suggest that even such questions as the necessary length of line over which we must carry the high-voltage systems, are themselves functions of this pattern of distribution, and in some cases they are functions of quite irrational and quite unplanned accidents of utility company jurisdictions left over from the past.

Nobody in this country has as yet designed whole communities which minimize some of the problems that we are talking about here today, but certainly that is not outside our competence.

I don't want to put forward a special perspective—the benefit-cost issue or public choice perspective—because I think that Mr. Bennett alluded to this, and I think we are fortunate that Mr. Bennett is so sensitive to this issue. But the present pattern which we have developed in our country has often given local communities and local citizens very little choice in the matter of land use by utilities, and I think this is something which local communities are now beginning to attack with some kind of vigor.

This point is made very clear in the Woodside issue which Mr. Bennett spoke about, which involved some high-voltage lines. The issue was not really: Shall there be any high-voltage lines or shall there be any high-voltage lines above ground or underground, but shall they be along a certain alignment which was especially damaging to the view and to the scenic character of the area?

As long as it was determined by the utilities and others that it had to be along a certain alignment, then the citizens said, let us put this underground. They made it very clear that in this event they would be prepared to face all the consequences of doing this.

I suggest we have hardly begun to explore the real choice situation, the real alternatives open to communities in these situations. If a community wishes to place an especially high value on a particular site or a particular view, then it seems to me there are plenty of mechanisms for recouping the added cost, even if they be 10 to 1.

The Highway Act principle, which we employ in this country, demonstrates very well, for example, that we could in fact take up to 3½ percent off the capital costs of Federal projects and highways for beautification and scenic purposes. A similar principle applied to the utilities would in some cases have well handled the costs that were added. Not in all, but in a number of cases, such a formula offers quite a bit of promise. It may be a question whether we want to invoke such a formula, but certainly the possibility exists.

Similarly, I think, when we look at the problems, we ought to perhaps distinguish those which are technical and economic from those which are basically, at the present stage of the game, engineering problems. In the long haul, a good deal will have to be done in the way of State planning and Federal planning to create the real possibilities for choice for communities operating vis-a-vis the utility problem. As bitter as it may be, State planning in particular is going to have to rationalize the present pattern of distribution, so as to avoid some of the most unfavorable aspects of the present infringement, on the scenic beauty.

I remember when I was a boy in the Niagara frontier, where a lot of power was generated by Niagara Falls, that we had the most extraordinary pattern of crisscrossing of utility lines, all through Ontario, because the utility companies were trying to cut each other out of specially favored territories, and engaged in an intricate game of real estate dominoes.

In a certain respect, this is what will have to be controlled and controllable in the future by State planners.

When I say State planning, I mean the activities of the public utilities commissions themselves.

Very likely, too, as Mr. Bennett suggests, we will have to suggest long-range funding. We will have to facilitate the prospect of creating public funds by a system of charges needed to build up the resources for the research and development activities which will eliminate some of the more undesirable features of the present-day transmission pattern. It is very likely, too, that we will have to ask for Federal cooperation at the planning level for Federal use of some of the powers which already exist in Federal agencies to bring about some of the more difficult changes with respect to our present undesirable pattern.

For example, the Federal Housing Administration is in a position to greatly facilitate the relocation of some unsightly utilities by simply supporting the value, the increment, in its own loan policy. If it is willing to recognize an absolute premium on properties which are not blighted scenically, then it has the potential for creating a very favorable loan situation. This is one of the things that you need to get at.

The problem is that we have high costs on the capital side and very long amortization periods. The Federal Housing Agency could help out by its valuation policies.

I have already mentioned the Highway Act principle. I think there are many other such powers now in the Federal community facilities program, and others, which could be used.

To sum up, I am not convinced if we care very much about the scenic defects of utilities, if we care very much about some of the safety effects of utilities, if we care very much about some of the general blighting issues that have been raised, that it is beyond our power to change these. I feel very strongly that we are not victims of existing technology in this regard, and we are not really at the mercy of altogether unfavorable cost estimations. Put differently, not all the costs we now favor are unavoidable costs.*

Mr. McMULLIN. As a bridge for the discussion by the audience, I would just like to firm up some of the things said here by various members of the panel. First of all, there certainly is a growing awareness on this matter of eliminating electric lines and putting them underground. This awareness is certainly developing among the people, and as a result of the awareness by the people, it is developing with the utilities and the utilities are responding with incentive programs for underground installations. They provide cash allowances and advertising and other incentives for the developer, and also cash allowances and participation in financing to put the lines underground. And there are predictions that within five or ten years, all installations, all new installations, will go underground.

Now, as has been pointed up, the existing overhead lines present another problem. One of the things that is being done by many utilities is improving the overhead installations, making the poles more graceful, less obvious, doing many things to at least please the eye. Although I am associated with a utility, I have to confess that we haven't always had aesthetics in mind in doing some of the things we do. I think of the transformer that hangs outside the picture window at home. But I don't dare ask to have it moved, because I will be in trouble.

We can improve the design on the overhead installations. Some effort is being made to give this a name called "power styling" or "community styling" as we call it in our organization.

How can we speed up these programs? Professor Dyckman has mentioned financing. This is certainly one of the ways, a practical way. I think it may take some amending of title II under FHA,

*Mr. Dyckman has submitted a further statement which appears later in this chapter.

which is the portion of FHA loans for improvements. Maybe this can be done for putting lines underground, to join consumers together in some kind of a district to get long-term and low-cost financing. The utility can cooperate by putting the payments on the bill and paying the funds to the Federal Government on the repayment program.

I am addressing myself to underground distribution lines within the communities. Research is still needed here to bring those costs down. We are down to $1\frac{1}{2}$ to 1, as Mr. Lischer pointed out here. Well, the object is to get it down to even cost and then this will make it practical to go underground with all installations.

Certainly, it behooves the utility to take an aggressive approach to solving this problem and with this awareness comes the need to dig into the problem and really get at it.

I think conferences such as this help make the utility conscious of it, aware of it, and I think all of us and all the utility people who may be present here, will take the message home that we have a job to do and we have to translate this program into action in our communities.

In regard to transmission, it behooves us to look at this problem, as Mr. Bennett pointed out. We need to look at the practical side—at possibilities of rerouting lines, bringing power into our cities on power avenues or energy rights-of-way which will conflict less with the scenic values of the community or the area.

Here again, turning to Professor Dyckman, this is an area perhaps for tax incentives like the present construction tax credit. This is applied to utilities and I believe is some 3 percent. This may be an incentive for rerouting or for going underground in critical areas, recognizing as brought out here, that undergrounding has a prohibitive cost.

Again, there is a lot to be done in improving the appearance of the towers, making them more attractive and making them fit into the landscape more. We can do a lot on this.

In some areas committees have been organized to take care of this. We have a 24-utility committee out in the West covering five States—Arizona, California, Utah, Colorado, and New Mexico—called the Utility Appearance Committee, and we are working aggressively to resolve some of these problems.

Research is an answer. I think maybe it calls for some Federal grants joined by the utilities, the manufacturers, and the Federal

Government. We need to speed up this research and solve this problem of how to put these extra high-voltage lines underground.*

Questions and Discussion

Mr. CISLER. I have been in energy and the power industry for nearly 43 years, and I have seen great changes occurring during that time, not only in research, but in design and operations. There are under way in this country tremendous developments in the field of energy and power. I wonder if we realize that we have in the United States as much electric power as the next five nations in the world, including the Soviet Union. And more and more of our total energy requirements will be in the form of electric energy.

Therefore, we must move tremendous amounts of energy from one area, from the source of generation, to the many, many points of utilization. This can only be done by the use of high-voltage transmission lines from the generating stations to the substations and from there to the low-voltage service connections. There is a very close relationship between private industry and the public operating organizations in connection with research and development. The Edison Electric Institute is concerned, it has been for many years, with the improvement of overhead and underground installations. There is a handbook which has been in existence since 1957 in connection with underground transmission work.

There has been formed recently an advisory group between the public and the private industry in connection with research and development, and I believe that there is much that can be done in improving the appearance of both overhead and underground installations.

Mr. BENNETT. Public utilities have the power of eminent domain. If this weren't Federal property, they could walk through it and condemn it as their own. That is as it should be, because the public decided in the public interest, utilities should have the right to extend the lines for the over-all good but that was in a society that wasn't as complex as it is today. We see the difficulty in a situation in California today. Utilities have the right to walk down the scenic routes and over agricultural land, and there arises the question whether there should be some limit on this.

*Mr. McMullin has contributed a further statement, which appears later in this chapter.

When you go to a given community, small in size, you can find a local planning commission, not skilled in the requirements of planning and a local community intent upon tax revenue from the utility facilities. It occurs to me that this power of eminent domain must be modified. We must view these projects now, since we are such a complex society, as being beyond the province of one local planning commission.

This can be done. We have done it in other areas. It gets back to the thought I expressed originally. There must be a public agency which will interpose upon the community, upon the judgment of management, the final determination whether this is aesthetically pleasing. And I for one would support such legislation. There is a bill in California to that end, and I plan to speak on behalf of it.

Mr. NELSON. I would like to ask Mr. Bennett a question. Did I understand you to say that if the utility chooses a more expensive method in extending its distribution system, that when the utility made an application for a rate increase, you wouldn't challenge that utility as having taken the expensive way of doing it?

Mr. BENNETT. No, I didn't say that, and I didn't mean you to conclude that, but I will say that we will have to recognize this. If we want to save Yosemite Park, and let's say it is private ownership, the most direct route might be from a line A to a line B. If it is more expensive to go some other route, to save some scenic highway or area or national park or whatever, certainly we have to pay for that other route, otherwise we will not get it. As a regulator, I would recognize that as being a legitimate expense.

Mr. NELSON. Isn't the Public Utilities Commission of America meeting in Sun Valley right today? Maybe we should get a telegram off to them.

GUS NORWOOD. Four quick comments:

1. Mr. Dyckman, FHA now gives you a higher appraisal on underground if, in fact, that increases the value of the property.
2. On installation, Seattle City Light has been using local improvement districts for undergrounding for conversion from another system.
3. The panel has discussed this problem almost entirely in terms of initial costs. Underground facilities generally have longer life and the O. & M. costs are less. We find this brings the two annual costs much closer together. In rare cases, underground is actually

cheaper. The real test of costs is what are the annual costs, not what is the initial investment.

4. Mr. Nelson may want to comment on this. Under the Collier-Burns Act of California, the highway right-of-way is multipurpose. This is the only State where this is recognized. All the other States insist that the right-of-way is like the railroad, which prohibits other utilities to get on except by sufferance. The utility corridor, or whatever you want to call it, is one of the things I would like to see explored further, particularly by the new panel that the Federal Power Commission is bringing into being.

A DELEGATE. No amount of aesthetic redesign of transmission turrets can make up for the destroyed homes, for the desecrated landscape and for the loss to communities that result in the pathway of these turret lines.

Why hasn't there been advantage taken of technological advances that do not require utilities overground, such as gas turbines that are being used by other visionary utilities?

Mr. SWIDLER. Well, there are certain troubles with gas turbines. One, they're not very efficient. They give off a lot of air pollutants. They are not very good for the community where they are located. They have a high noise problem that really will create a neighborhood inconvenience. And in addition to that, there is a question involved as to whether this is the right way to make use of natural gas supply on a year-round basis, whether it contributes to the best use of our exhaustible resource of natural gas. These units are, for the most part, peaking units, which are too expensive to operate on base load. You need a peaking unit when you hit your peak, which may be the same time that your natural gas peak occurs. You might thus need to build special gas transmission facilities to be sure you would have desired capacity there when you need it. For all these reasons, they fit some places, but they don't fit every place.

Mrs. ALEXANDER SAUNDERS. This question goes along with what Mr. Bennett has been saying: What control may a community exert or expect to obtain by legislation to prohibit overhead lines or to request underground lines when the power that is being transmitted is not used by the community in question?

Mr. BENNETT. Briefly, you run into this question, that a local ordinance may be unconstitutional under State law because the matter is of statewide concern.

I suspect in California that one community couldn't have electric lines underground and the next community above ground, and so on. It is a matter of statewide concern, and local ordinances run into that danger. This is why State control is what is required.

Mrs. WILLIAM G. REYMOND. As a housewife, I think we should not fail to point out what a wonderful job the utilities do and have done in supplying our utility services. They keep us cool in the summer, warm in the winter and cook our food, and do all the other things which we would miss otherwise. In fact, Hurricane Hilda, which blew into Louisiana last October, knocked our power out for four days and brought closely to our mind how important utilities are and how much we depend on them.

But I think utilities for the most part, although they supply us with something very important, have been negligent in doing just the minimum in preserving the beauty of our country. I am glad to see that so much work has been done on improving the design of the facilities, for I am aware of a pipeline situation in our local refinery which is comparable. They had so much confusion in the pipes, they finally took them all up from underground and organized them on well-designed overhead tracks through the refinery. Now, they have become an aesthetic asset, not an eyesore.

The utility companies are missing a bet in not doing something like this with their wires. A well-designed pole and well-organized lines could actually remind the consumer, as he drives down the highway, that these wires keep him cool in the summer and warm in the winter.

A DELEGATE. A gentleman here asked the question of multiple use of rights-of-way, and there was no discussion and no answer. I should like to ask Mr. Bennett or Mr. Dyckman if there is any reason why various utilities shouldn't use the same right-of-way and thereby condemn less property.

Mr. LISCHER. Speaking only for the area that I am familiar with, we have underway an intensive program to put high-voltage transmission lines on railroad rights-of-way wherever possible. We think this is a benefit to us, to our consumers, and to the railroads. Just recently we completed an arrangement with the Illinois Tollway Commission, whereby we can actually put powerlines on their right-of-way for a given distance. I think there is much to be said in favor of this.

Mr. DYCKMAN. There is also much to be said for having a single trench, if you are going underground, for more than one utility system. There are some technical problems in this, but, in the very long haul, I think we are going to have to plan for such systems. Many utilities are changing their technology, making new installations and replacing existing equipment. It seems to me, when this is done, we shouldn't have a lot of incremental decisions, one piled on the other, without regard to some long-run shared interest. The community may have to find the way to do this which will be most economical and in the long run, most aesthetic.

I am looking for the time when the telephone people, who have problems with this now, are sharing common rights-of-way in common trenches perhaps with the power transmitters and others.

Mrs. SUSAN STONE. I live in the franchise of the Illinois Power Co., and perhaps Mr. Lischer knows something about them (and their operations) that I don't know. I suspect they haven't heard about some of the suggestions that have been mentioned by the panel today. I wonder very seriously whether a compilation of these suggestions will automatically go to all power companies throughout America.

Mr. CISLER. It is a very good thought, and I can assure you that much of what has been said here will be passed on.

Mrs. STONE. Thank you.

I have one other question, and that is, will the panel make specific recommendations to the President tomorrow on Federal incentive programs, perhaps to help power companies in local communities shift from above ground to below ground in existing installations and shift to some of the schemes that Mr. Wilcox mentioned, more compatible substations and transformers, this sort of thing? If expense is a factor in shifting, can we look forward to Federal incentive recommendations from your panel?

Mr. CISLER. There has been no decision made on what the panel will say, but I can assure you that much of what you point out is already being done.

Mr. McMULLIN. I would like to comment to the point raised by the lady just now. I know that the American Public Power Association is carrying on a very aggressive program to bring to the attention of their membership the need for meeting the community

responsibility in this area. I know, Mr. Cisler, that your Edison Electric Institute is doing the same. Mr. Cisler is the immediate past president of that organization. I am the immediate past president of the Public Power Association.

RALPH LOCHER. I was a little disturbed by the statement that the new development seemed to lend itself best to the underground installations. Frankly, that would only be compounding the problem that we have in the older communities. I believe it is because of the great volume of business that was generated not by suburbia but by the good old section of the town, where much of the industry is located, and many of our pollution and other problems, that the electric companies, private and public, are in the sound and enviable position they are in today. Therefore, I would urge, even though it may be a little cheaper to put them underground in suburbia, our problem is to prevent the blight and to beautify the areas that need it most, not out in the new and fresh, clean areas, but in the older parts of the old cities of the United States.

Therefore, I would hope that the private and public power companies will not put all their underground installations on the outskirts of cities where it is less expensive rather than where we need them most.

Secondly it is very encouraging that you reckon the cost of underground versus overhead at a ratio of $1\frac{1}{2}$ to 1. A few years ago, when I hoped we could do this in Cleveland, it was then 10 to 1 or 20 to 1. Now it is down to a point where it is much more efficient and feasible.

But do you reckon in the costs, Mr. Wilcox, such things as the cost of the lawsuit when a crane, as happened recently near Cleveland, hits an overhead line and a man gets killed or when two or three of these monstrous towers get blown over, as happened not too long ago in our part of the country, when we have long periods of outages, and the public is inconvenienced? Are these things reckoned as well as the aesthetic considerations and as well as the planning considerations?

It seems to me also, there is the important consideration of lower fire rates when you don't have these hazards. I suspect, but I am no authority on this, that if you were to reckon all of these costs, you might find that it is not $1\frac{1}{2}$ to 1; it very well might be 1 to 1.

ALLAN TEMKO. I have two short questions. One might be addressed to Mr. Swidler at the national level and Mr. Bennett at the State level.

The Woodside powerline controversy, mentioned earlier, was a direct result of the large-scale Federal investment, \$125 million, on the Stanford campus for a linear accelerator, and, indeed, the powerlines on the peninsula of San Francisco, very large installations there, are all heavily affected by large-scale Federal investment, say, in the Lockheed plant, at Sunnyvale, which is a big power consumer. Is it possible for the Federal Government to take an overview of this magnitude, to anticipate needs which often conflict with other forms of development? The same complex of powerlines has marred the city of Forest City, a large-scale, so-called new town, only a short distance away; powerlines go through the center of that new, so-called planned community.

The second short question, perhaps to Mr. Wilcox: What of research and development which might be of only marginal immediate interest to the private utility companies and the manufacturers, such as wireless transmission of energy, or say the application of an invisible wire amplatron, which the Raytheon people conceived? Can the Nation in some way hasten large-scale application of such revolutionary devices?

MR. WILCOX. I would say this is a very great distance in the future. I know of no feasible way now to transmit even small amounts of power which could be utilized by you or by me in our homes by this method.

And while I will not say that we will never do it, I will say that the time is very much in the future, so far away, that I think it is generations rather than decades.

MR. CISLER. Mr. Swidler will answer the first part of your question.

MR. SWIDLER. Or a part of it. I think everyone would concede that there are high-priority areas where additional expense of undergrounding is warranted, and, indeed, there is a good deal of underground in the congested centers of most of our major cities.

An English article had a good phrase for it. It said that undergrounding should be reserved for areas of high congestion or "places where the visual amenities are in the highest category," pointing out that for one mile of undergrounding of 275,000 kv. (a voltage

which is used in the United Kingdom but not here), they would have an additional cost equal to the total amount appropriated annually by Parliament for all historic sites in England and Wales.

So I think how much you underground depends on how you manage your total resources in meeting all of your problems. If this is it, there is some money you should be spending for undergrounding, but it is so very expensive that if you are planning to do a good deal of it, it raises a question as to whether it is the right way for us to use national assets.

MR. CISLER. I think this points out the great need for better understanding on the part of the public in general of some of the great problems that are involved, particularly in the high-voltage transmission.

HAL CLARK. We are meeting this same problem all through my area, including the Keystone project. When this project came up, the engineers couldn't see where there could be any other thing done except to continue pounding the stakes down and getting the land prepared for a plant on Hendrix Island on the Delaware River. It seemed they had a feeling that there wasn't any alternative, such as the very fine views we are getting here today from this great panel.

We have had a number of meetings, and the last one I attended was at the Overseas Press Club in New York. We had representatives from Connecticut, New York, New Jersey, Pennsylvania, and Delaware. Most of the people there are for private enterprise, like I am, 100 percent, but they felt, as one man expressed it, that if we can spend \$40 to \$100 billion to get to the moon, we certainly can well afford to save the face of the land that produces the taxes to put the man on the moon.

Therefore, they thought there should be a crash program, and that the Federal Government should be interested in it. As for Mr. Temko, they very much backed the position that there should be government control over where these lines shall go.

Now we are facing imminent building of some of these projects at the present time. In our county of Bucks County, we have a very fine planning commission, and we are meeting with the engineers of the Keystone project, very fine people. We know they have a problem. We know that we cannot stop the building up of electricity, because in the Delaware Basin alone we represent 1 percent of the land of this country, but we have developed 17 percent of

the wealth and 17 percent of the taxes. This is going to double and redouble, and it means more electricity.

We are very much concerned that this great complex from ocean to ocean may develop before there is serious thought and serious action in getting something underway. We cannot talk of beginning maybe in ten years. We think it should be expedited and it should be expedited in a way that will not cripple the big public utility upon which we depend.

Dr. RICHARD GOODWIN. I would like to make one comment. We have been hearing a great deal about the engineering problems in getting power around the country and it is very evident that we will have above-ground lines for some time to come. I am a botanist by background and this conference, which is concerned with beauty, should be concerned with the flora underneath these powerlines. We are talking about many hundreds of thousands of acres of land in the country. I would like to suggest to the panel that they consider making recommendations to the President and to their companies about giving more consideration to the hiring on their staffs of knowledgeable ecologists to advise in the management of the vegetation.

I will only refer to the problem of brownout, which many of us have deplored, going across the country with the indiscriminate use of herbicides. This is an unnecessary thing, and I think the power companies can actually make a financial saving by using better ecological techniques.

WILLIAM CECIL. I don't have a local problem. I think we lost sight a little bit of the natural beauty aspects of power transmission. Power has to come in. It has to be transported. I would like to suggest that a more, shall we say, conservative line of thought be taken in clearing operations for the powerlines. A transmission line needs a certain large amount of area, but not as much as has normally been taken. Instead of chopping down all the trees, we should chop off the dead trees that will fall on the line and leave the healthy ones beside them. We can cut down the acreage with a little bit of landscape planning in the rights-of-way. We can do a lot to diminish the course of a straight-line cut.

I know, when you fly across the country, this is what we see, a straight-line cut. I don't think it is necessary. I think that with good planning on the part of the utilities, you can have your overhead lines, which are the economic ones, and you can get your power. What we are really discussing is the beauty of this country. You

change your rights-of-way and leave shrubs, thus taking care of the straight-line problems without increasing major maintenance problems.

CHARLES BRIDGES. I agree with the gentleman from Cleveland when he urges us to give more consideration to undergrounding the utilities in the older districts of town.

For example, when the panel members say that 50 percent of "new construction" has underground utilities, the figures sound very impressive and we might easily assume that a creditable job is being done. Remember, however, that in any one year less than 5 percent of the total area of any town is what might be called "new construction". And if only half of that 5 percent is underground, it means that only $2\frac{1}{2}$ percent of the total area of any town is going underground in any one year! Let's also face up to the fact that if 50 percent of "new construction" is going underground, the other 50 percent is not going under—which means that in fact we are not winning the fight against the poles, and that we are instead losing ground and adding every year to the jungle of wood and wire.

The only solution is to start now to go underground in the older districts.

Consider also that any one pole in an area of "new construction" may be seen by half a dozen people in any one day, whereas a pole in an older area—particularly downtown—may be seen by thousands of people daily. This means that the 5 percent which we started out with, but which became $2\frac{1}{2}$ percent upon examination, now has been reduced to less than hundredths of a percent in terms of visual impact and aggravation value.

Let's not accept "new construction" figures which lull us into complacency. Let's instead concentrate on going underground with our utilities in those areas which count most—downtown, and along our highways.

Mrs. VALLEY KNUDSEN. For the past few years we have been making quite a study of the problem of putting utilities underground. Very little has been said today about the danger of broken wires and the creating of fires. These broken wires were caused by wind. We went through the fire in Glendale caused by broken wires in three different places. I wonder how serious you feel this is, having utilities above ground in case of wind and fire.

Mr. CISLER. It is a question we will consider in our deliberations.

Statements Submitted for the Record

WILLIAM M. BENNETT.* In the State of California the public is becoming more and more concerned about the appearance of utility installations and facilities. The trend, particularly in new subdivisions, is toward undergrounding.

So far as transmission lines are concerned, while complete beauty is an ideal, no way has yet been found toward a satisfactory formula for apportioning costs.

The key to aesthetics inevitably is cost. We accept the premise that the general public and rate payers are aware of the problem of costs and despite that fact wish to arrive at that point in time when both distribution and transmission systems generally speaking will be underground.

As to costs, as a society we have learned a great deal about the benefits which can be achieved through utilization of the economic system. The most timely example of massive economic wellbeing comes from the recent Federal tax reductions. And here may be the key which will permit the realization of aesthetics in the utility field and which will solve the problem of costs. There is really nothing new or novel in granting a tax benefit for certain purposes. For example the statutory depletion allowance represents public policy to the end that incentives be provided for the exploration and development of oil and gas. If this type of tax benefit, which has been estimated to cost the Treasury Department \$2 billion annually, may be accorded for the development of oil and gas, then so also is it not only possible to confer upon public utilities such a benefit but in the long run may be even more socially desirable. A balancing of social and economic values may indicate that favored tax treatment should be channeled in new directions. This is not to say that this treatment is the sole or exclusive method whereby the problem of cost may be met. It should be remembered that the National Power Survey projects enormous savings in the electric industry and properly states that these savings should be passed on to rate payers.

Benefits to rate payers can take many forms beyond that of lower electric rates and one of the permanent benefits would be that such savings together with such tax incentives as may be required shall be utilized to create a system of underground utilities for the nation.

*This is an extension of the remarks made by Mr. Bennett during the panel discussion.

We should not be deterred in any event by the immediate cost problem since as I have pointed out, economic tools exist both within the electric utility industry itself and by virtue of tax programs to meet this problem. Undergrounding should be viewed as a capital investment, the benefits not to be measured by cost alone. There is the enhancement to the landscape which has its own benefit and which in our society can be translated into an improvement in property values.

I urge for discussion and study the desirability and feasibility of conferring tax incentives upon public utilities so as to realize the ideal of undergrounding and secondly I urge exploration of the precise form the savings to be realized from power pooling and interties should take.

CARLTON J. DAISS. The Institute of Electrical and Electronics Engineers has given a great deal of attention to the problems of underground distribution and the improved appearance of overhead construction. Mr. C. A. Woodrow is chairman of IEEE's Power Group and Mr. L. J. Weed is chairman of the Underground and Distribution Subcommittee of its Transmission and Distribution Committee. They have prepared the following summary:

Some 10 or 12 years ago several privately owned electric utilities in the country began trial installations of underground distribution for some of their rapidly expanding developments.

This concept was rapidly adopted by other utilities and soon there were many similar installations all over the United States. Each utility set up its own standards of construction and consequently there were nearly as many different types of installations as there were utilities using them.

In order to achieve a semblance of standardization and uniformity in underground residential distribution the Insulated Conductors Committee and the Transmission and Distribution Committee of IEEE set up task groups to study the problem. Questionnaires were sent to all companies known to have installations of this type to determine what practices, if any, were similar in the majority of companies. The replies from these questionnaires were carefully analyzed and a report was prepared indicating the types of construction preferred by a majority of the companies.

In order to adequately present and discuss the information obtained from the questionnaires, a Special Technical Conference on

Underground Residential Distribution was held in St. Louis, Mo., April 21-23, 1964, at which a total of 35 technical papers were presented by utility engineers and manufacturers' representatives from all areas of the country describing their practices and equipment.

These papers had previously been bound in one volume as IEEE Publication No. T-160 entitled "Special Technical Conference on Underground Residential Distribution" which were available to all registrants prior to the technical sessions. This gave everyone a chance to read the papers prior to their presentation and to discuss them with complete understanding. Adequate time was provided for the discussions which were very informative and brought out many new ideas. These discussions were subsequently bound in one volume as IEEE Publication No. T-160-S and sent to all registrants as a supplement to the original volume.

In conjunction with the Special Technical Conference, there was also an exposition consisting of exhibits by 53 manufacturers of equipment used for underground distribution such as pad-mounted transformers, primary and secondary cable both for direct burial and conduit installation, and other accessories and equipment.

The conference was attended by over 1,100 registrants from every State in the Union and several foreign countries, and an additional 400 persons attended the exposition but did not register for the conference.

A second Special Technical Conference on Underground Residential Distribution will be held in Chicago, Ill., in September 1966. This conference will be similar to the one held in St. Louis, but its purpose will be to bring everyone up-to-date on new developments and new equipment designed for increased economies in installing underground distribution. It is anticipated that we will have at least 50 percent more registrants and probably double the number of exhibitors at the Chicago Conference.

At the 1965 summer Power Meeting in Detroit, Mich., a symposium will be held on Underground Distribution in Medium Load Density Areas which will consist of some 18 papers on current types of underground service to commercial areas, shopping centers, and large housing developments including "high-rise" apartment buildings. These papers along with the discussions will be bound in a single volume and be available to all registrants. In connection with this symposium, there will be an inspection trip for all interested persons to see some of these installations on the Detroit Edison system.

Paralleling the activities in underground distribution, IEEE has given considerable attention to improving the appearance and increasing the reliability of the existing overhead construction. Many studies have been made and papers presented on such things as improved design of transmission towers, harmonizing color of equipment, elimination of crossarms on distribution poles, use of cabled secondary mains, elimination of series street-lighting circuits, use of higher voltages for distribution circuits, reducing the height of substation structures, proper landscaping of substations and many other areas of improvement in appearance of all structures that at the present time must be maintained above ground.

JOHN W. DYCKMAN.* It is not my intention to argue the case for underground utilities. The purpose of this conference is to discuss contributions to the preservation of scenic beauty, and there are few who deny the impairment of view, landscape or cityscape, imposed by overhead utility lines. The argument for the continued use of overhead utility lines has been advanced almost entirely on economic grounds. It is my belief that these arguments use too narrow a cost accounting base, undervalue a variety of social benefits, and even on economic grounds are excessively short-run in their outlook.

The evidence of the enhancement of property value premiums in superior residential developments in which unsightly overhead utilities have been avoided suggest that the social valuations in question have a way, over time, of finding their way back into market valuations. Accordingly, I wish to concentrate our attentions on ways in which we might act to secure these greater long-term gains.

1. Since the premium attached to developments which avoid unsightly overhead utilities is most apparent at the time of resale, while the improvements themselves are paid for at the time of initial development, steps are necessary to bring the cost and valuation into more intimate phase. As a step in this direction, we should urge the FHA to issue directives which explicitly recognize underground utilities as a site improvement and a premium to the property for loan purposes. If the FHA and other agencies which influence or make loans, were to add their weight to the devaluation of developments which violate these principles of scenic preservation and to support those which actively enhance the character of the develop-

*This is an extension of the remarks made by Mr. Dyckman during the panel discussion.

ment, a major step could be taken to overcome obstacles of somewhat greater initial cost in the provision of underground utilities.

2. To secure the cooperation of utilities in this program, it is recommended that underground utilities be included in the "billboard" and "scenic" provisions of the 3 percent money made available under the Federal highway program. If underground utilities are further added to the requirement for one-half percent bonus money made available to municipalities for scenic controls under this act, municipalities and other civil subdivisions would have tangible incentives for local regulations and other actions which might be taken to secure underground utilities.

3. Grants and loans made available to local governments under the community facilities program should be restricted to those improvements which do not violate scenic amenities. If 20 percent Federal aid money were made available for new utilities developments employing acceptable underground techniques with an increase to perhaps 30 percent aid for the relocation of utilities which are aesthetically substandard, municipalities and locally owned or controlled utilities would be able to overcome any cost disadvantages resulting from the somewhat heavier initial capital outlay required by underground utilities.

4. Municipalities should take the initiative in creating economies of scale in which all utilities might participate. As an example of such economies, localities might consolidate easement and create a technically superior single trench system for the joint use of various utilities. Federal assistance for research in the technical problems of utility trenches could easily be made available under existing programs.

5. States should overhaul legislation under which assessment districts might be formed to provide long-range financing of improvements, including the redevelopment and relocation of existing utilities systems that scar or deface scenic areas.

6. A public information program should be mounted to make available accurate data on the real costs, and the public stakes, which are involved in the substitution of unobtrusive utility systems for presently offensive ones.

H. J. JENSEN. Manufacturers serving the electrical transmission and distribution industry, in our observation, are devoting a great deal of effort and have made considerable progress in developing

and manufacturing equipment and components to make aesthetic systems more economical.

As a major supplier to the industry, the Electrical Products Division of Kaiser Aluminum & Chemical Corp. has directed a substantial portion of its research and development programs to this goal, and has been encouraged by the reception given new developments by both private and public utilities. The introduction of new cable constructions and insulations is one of the important factors which have enabled the reduction of the cost differentials of underground electrical distribution in the lower voltages—and even up to 35,000 volts—with the resultant rapidly increasing growth of URD installations.

Progress is now being made on insulated conductors for higher voltages. We ourselves are currently collaborating with a major southeastern utility in a test installation of 115,000-volt cable utilizing plastic insulation in direct ground burial for underground transmission. Although it is still too early to gauge the success of this particular test, it is noteworthy that manufacture of cable of this type has only recently become possible.

While great strides have been and will be made in underground distribution, industry attention has also been given to the improvement in the appearance of overhead lines through the introduction of more pleasingly designed equipment and conductors such as pre-assembled aerial cable.

As was brought out in panel discussions, extra high voltage transmission presently has to be by overhead lines because of the extremely high cost ratio of underground construction for this purpose. Therefore it is desirable that every possible step be taken to improve the appearance of EHV transmission lines. Because of its lighter weight, aluminum conductors such as ACAR, a new type developed by Kaiser Aluminum which eliminates the customary steel core, allows towers to be placed farther apart; for example, four towers may frequently be used per mile instead of five.

Progress has also been made in reducing the cost, weight, maintenance, and silhouette of transmission towers. Aluminum guyed-V and guyed-Y towers can be assembled away from the installation site, flown there by helicopter and installed on a small concrete base. From an aesthetic standpoint, the slim structures are less visible against the skyline, and it is not necessary to hack access roads for trucks and workmen through the forest areas, either for installation or maintenance.

To accomplish further and more rapid progress in the future, we would recommend that collaboration between electrical utilities and their suppliers be intensified, on both an informal and formal basis, to develop products and methods which will improve the aesthetics of transmission and distribution networks on the most economical basis. Both utilities and manufacturers commonly apply value analysis methods to increase their performance and reduce costs. By linking their value analyses together as it applies to this problem, they can achieve faster progress towards the goal.

L. F. LISCHER.* In addressing ourselves to electric transmission lines (those operating at 66,000 volts or higher) and not to underground distribution, the problem is of much greater magnitude. In underground distribution great strides are being made so that in the near future such service may be provided at costs economically competitive with overhead distribution. For Commonwealth Edison last year 50 percent of all new residential subdivisions were supplied by underground distribution, and the total number of customers served from underground lines is now 140,000.

The problems in underground transmission are far from simple. For example, Commonwealth Edison figures show that to provide the same line capacity underground as overhead at 138,000 volts, costs on the average 16 times as much (about \$400,000 per mile for a single underground line); at 345,000 volts this ratio jumps to 45 times as costly for underground. A fact sometimes not readily apparent is that when underground transmission lines fail, as much as five days may be required to locate the point of failure and to make repairs. This, of course, necessitates duplicate facilities to avoid long interruptions and thus adds to the cost.

Many metropolitan areas already have extensive underground transmission systems. Taking the Chicago area as an example, we have today 50 percent of all our transmission investment in underground lines, and on a mileage basis this represents 15 percent of all transmission line miles.

There is need for considerable research on two fronts. One is how to build cables economically for voltages higher than 345,000 volts (which is the highest voltage cable we know how to construct today); and second, how to provide lower cost cables and installation methods for those voltages for which cables are currently being built.

*This is an extension of the remarks made by Mr. Lischer during the panel discussion.

It seems to me that there is another avenue of approach to aesthetics that may be worthy of consideration; we might make much more pleasing in appearance the overhead tower line structures being built today. For example, we are right now designing a 138,000 volt double circuit tower line using high strength tubular steel poles with simple tubular upswept arms in place of the conventional lattice tower made of angle iron steel. Such modernistic designs (and some have already been built elsewhere) can be pleasing to the eye and be built economically. I think much can and should be done along these lines.

The problems posed here are certainly most challenging and will demand the very best efforts of manufacturers and electric utilities.

ROBERT L. PERKINS, Jr. Although overhead transmission lines have a dramatic effect on scenery and produce acute special problems such as the destruction of bird life particularly at concentration points in wet lands and shallow water areas, underground utilities such as pipelines can also do great damage to scenic and natural values. This is particularly true on lands with forests and streams and small waterways.

As is the case with highways and other construction projects, particularly those backed by the power of eminent domain, a major need is to provide some orderly means of finding the relative values involved. Route locations and construction methods should be determined insofar as possible by an objective weighing of the economic and convenience factors against the destruction that will be caused, including that to scenic and natural assets. This means that those with a knowledge and appreciation of such assets must be involved in making the decisions.

In cases where the Federal Power Commission is involved there is at present no real opportunity for such a process since the Commissioners and the supporting administrative staff who make the decisions are not selected for their knowledge of matters relating to natural beauty. Further, many citizens who have an interest in a project site may have no practical means of finding out about proposals until after a decision has been made, since most people do not maintain a scrutiny of the Federal Register where notice is given.

R. J. McMULLIN.* Let me begin by saying that I am very cognizant of and deeply concerned about the problem we are gathered here to talk about.

*This is an extension of the remarks made by Mr. McMullin during the panel discussion.

I think I can speak for most of us here representing the electric utility industry when I say that throughout our history we have given emphasis to perfection of technology, continuity of service, quality of service in other respects such as voltage regulation and so forth. In addition, one of our foremost considerations has been to lower consumer costs. In this regard, I don't believe the electric utility industry can be matched. A quick look at the average cost per kilowatt-hour over past years compared to other consumer costs will reveal this fact.

This has all been good, but a new consideration has been coming to the front during the past few years. Due to increasing pressures of public desire and opinion and our own realization of the need—improving the appearance of our service facilities in the community has been added to our list of goals. In planning distribution and transmission systems, many utilities have already adopted a philosophy giving weight to the factor of appearance, as a community benefit, equal to those traditional factors of need, function and cost.

At the Salt River Project, we have coined the expression "community styling" which embodies this philosophy. "Community styling" is the concept against which we are measuring our construction plans.

To achieve improved appearance, the most desirable situation would be attained if all of our transmission and distribution could be installed underground. A great deal of progress has been made toward this end in the area of lower voltage distribution systems. To achieve this goal for transmission lines in the near future appears at the moment to be very unrealistic.

To measure progress in underground residential distribution, *Electric Light and Power* magazine reported in its April 1965 issue that results from a widespread survey of electric utilities indicated:

1. Many utilities predict total underground residential distribution for all new installations in five to ten years.
2. Ninety-two percent of the utilities surveyed in 1964 were open-minded or in favor of underground residential distribution, whereas 60 percent were opposed in 1960.
3. In total-electric "Gold Medallion" developments, the ratio of underground to overhead costs was approximately $1\frac{1}{2}$ to 1, and many of the utilities absorb the cost difference of underground to obtain the higher kilowatt-hour usage in Gold Medallion developments.

4. Present design dates back to 1959 and service reliability has been excellent. (This tends to eliminate a major question mark for many utilities.)

5. The swing to underground residential distribution is accelerating as the cost ratio of underground to overhead lowers.

Practical answers are being found by electrical manufacturers and utilities. Residential distribution is going underground and that part of the problem will soon be approaching complete solution.

The picture looks vastly different, however, when considering high voltage transmission systems.

The present difference in costs between overhead construction and underground is so great that underground construction is definitely impractical except in those metropolitan high-rise areas where it can be justified by extremely high load density. This cost difference has been stated to be 5–15 times greater for underground under some circumstances, and as high as 50 times greater for extra high voltage lines in other situations. I can offer little hope that this problem can be solved in the near future.

As frustrating as this problem may appear, there are, however, things we can do and should do.

First, it seems to me, all of us should give encouragement with time, effort and money to intensified research for improved underground transmission line materials, equipment and technology to foreshorten the time necessary to reach the goal of underground transmission.

Perhaps one of the answers might be found in underground direct current transmission, if concentrated research were able to overcome the termination problems and costs.

Next, why not direct our attention into those areas where interim measures might produce improvements in appearance of these lines, although falling short of the ultimate of underground installations? In this regard, I would like to suggest a few ideas which, though untested, might stimulate thought and discussion.

1. When laying out the route of long distance high voltage lines, why not try to select rights-of-way that would tend to hide the line, blend it into the surroundings through which it will travel, and place it so as to preserve natural scenic beauty—even though in isolated areas? Perhaps if we give equal weight to the factor of appearance in our considerations, the shortest distance between two points isn't a straight line any more.

2. For those stretches of these lines approaching cities, why not start right now to find ways and means to go underground even at present costs?

3. As a corollary to the ideas I have just mentioned, perhaps public agencies such as cities, counties, States, and even the Federal Government should assume proportionate shares of the added cost of following out these suggestions. This might be accomplished by granting the electric utilities specific tax credits which would have the effect of relieving them of the entire burden of the added cost attributable to improved appearance and preservation of natural beauty.

All costs of utility operations must finally be paid by the customers, as we all know. It can be forcefully argued that to pass these added costs on to the electric consumer would be an inequity, because the benefits of beautification work do not accrue solely to these customers. We can all find illustrations of this fact, I'm sure. For example, a transmission line might be rerouted to preserve the natural beauty and public view of the Painted Desert or Meteor Crater in Arizona. How much of the cost to do so should be paid by the electric customers of the city of Los Angeles, or the Salt River Project or the Arizona Public Service Co.? In my opinion, there is merit to the idea that such costs should be spread over a broader base. The base should be determined by examining the question, "To whom do the benefits flow from the beautification work which caused the added cost?"

My comments are not intended to represent pat answers to a problem as complex as this one. I do hope though that they might provoke constructive thought. This is one of the greatest challenges ever to confront the electrical industry. If we probe our imaginations, if we turn our creative resources to the task, if we can have the support of our government's leadership (as is being evidenced here at this meeting), the electrical industry will be able to measure up to the job and continue to occupy a position of major leadership in the growth and progress of our Nation.

JACK B. ROBERTSON. Except for the United States, the industrialized nations have generally adopted a policy of undergrounding of utility lines. Modern insulation materials have now made possible the long life undergrounding of utility lines within the economic reach of an affluent nation.

To facilitate the burial of utility lines, the following is recommended: (a) Require utility lines be buried leading to all newly con-

structed Federally-insured houses or housings, and (b) require an effective program for undergrounding of utility lines (including the requirement that all public and private new construction and major remodeling include undergrounding) as an element of every urban renewal "workable program" and as a precondition of all Federal renewal, housing, community facilities, urban highway, landscaping, etc., assistance.

GLENN L. SMITH. Although much of the Nation's ugliness abounds in urban areas, a lot of America's otherwise scenic rural vistas are blighted by a multiplicity of manmade objects d'horror. Leading the field, of course, are billboards, auto junkyards, dilapidated housing and scarred, mined-out countryside; but unsightly overhead transmission and distribution utility lines contribute more than an equal share to the total problem.

Some research is being conducted to bring about a technological breakthrough in undergrounding high-voltage transmission lines. There seems to be no real promise of much being accomplished in the near future to get costs down to practical limits. Thus, we can expect to have the tall towers cut their swath through the valleys and over the hills and mountains for years to come. But what about rural electric and telephone distribution lines?

Here is an area where much can be done and much is being done. The Rural Electrification Administration estimates 70 percent of all new line construction by its telephone system borrowers will be underground. Translated into dollars and route miles of lines, an estimated \$33.3 million of new loan funds will help construct 28,000 miles of rural underground telephone lines. The aesthetic by-product of this, of course, is a less cluttered and more lovely rural vista.

Even before buried plant came into being in rural areas the Rural Electrification Administration helped lessen the ugliness of electric lines and poles by pioneering longer line spans, and in dispensing with the use of crossarms and related appurtenances. The longer spans substantially reduced the number of poles needed along the roadways. And this, together with the elimination of crossarms, resulted in much cleaner appearance and greatly minimized the ugliness of above-ground utility facilities.

The REA-financed electric and telephone systems serve in better than 89 percent of the 3,100 counties in the United States. The

route miles of distribution lines of rural electric cooperatives constitute over 50 percent of the Nation's total. This covers a lot of ground. But even so, the rural electric cooperatives, higher costs and other roadblocks notwithstanding, are intently interested in undergrounding distribution lines. A substantial number of borrowers have done some underground construction although few have installed any sizeable lengths of primary cable to date. An inquiry among these borrowers shows that they expect to install increasing amounts of underground line in the future. In a memorandum dated April 23, 1965, Secretary Freeman issued a policy statement on natural beauty of the countryside. In this he promises support of the President's program on natural beauty and included the following statement:

The Rural Electrification Administration will increase its emphasis on development of rural utility installation methods to maintain and enhance natural beauty. A continuing effort will be made to develop ways for reducing costs of installing underground utility lines.

J. STANFORD SMITH. By making the restoration and preservation of the Nation's natural beauty a part of our national purpose, President Johnson has extended a significant and exciting challenge.

It is a challenge that will find a warm response from the electrical equipment manufacturers and the electric utilities of the Nation.

Electricity is said to be the cleanest and most versatile form of energy yet discovered. Its intensive application to one after another aspect of life has transformed the horse-drawn, steam-driven, gas-lit America of Edison's time into the archetype civilization of the 20th century.

It is no wonder then that Americans have developed an almost insatiable appetite for more and more clean, safe electric power, and that the Nation's utilities are spending more than \$5 billion this year just for the equipment to generate it, and deliver it to the consumer.

As they have since the age of electricity first dawned, the utilities will use the major portion of their investment dollars in 1965 and beyond for the transmission equipment which carries bulk power the long distances from generating station to community, and for the distribution equipment which reduces voltages to usable levels as it delivers current to our homes, business establishments and other points of use.

While this equipment carries a noiseless source of energy that neither pollutes the air nor emits harmful radiation, there is the challenge of aesthetic improvement. This panel has been asked how the Nation might be served with abundant electric power at the same time its natural beauties are preserved and enhanced.

First, as regards distribution, great progress has been made recently. The degree to which the utilities have pioneered underground distribution systems in their service areas has been limited only by the ability of equipment manufacturers to develop the products and technology to make such installations feasible.

The great barrier, of course, has been cost. As recently as five years ago, the cost of underground ranged up to five or six times higher than overhead. Costs have now been reduced as much as 80 percent—under ideal conditions—with the development of such new General Electric products as:

A cross-link polyethylene cable which makes it possible to bury cables directly in the ground without the need of expensive cable ducts.

A smaller transformer which can be modified to be buried in the ground.

A factory cable termination which permits making cable terminations in the field in minutes instead of hours.

These and other product advances, complemented by consultations and seminars with utility engineers, have helped make it possible for whole new communities to be served by distribution systems completely below the ground. This development is clearly a harbinger, for more and more utilities are finding that their customers prefer underground whenever new technological progress can make the cost differential small enough.

Nonetheless, it is imperative to keep in mind that such factors as terrain, load density and water level prevent underground distribution from being feasible in many places at this time. General Electric therefore has devoted increased attention to working with utilities to improve the appearance of overhead lines already installed and yet to be installed where underground is economically impractical.

This work includes: increasing the voltages of distribution circuits so that only one circuit need now be installed where previously several were required; introduction of a smaller, sky-gray transformer; use of side post insulators rather than cross arms where only one circuit exists on a distribution pole; development of a polymer

pole top with no side appurtenances; and streamlining a factory pre-wired lighting pole which provides five times as much light and no more power consumption than units previously installed.

This type of physical improvement, combined with the lower cost to the consumer, may make overhead preferable to underground in many areas. Where this is so, the marriage of practicality and aesthetics will continue to add dividends of value to the eye as well as the purse.

Moving further back on the power system, the substations for stepping higher voltages down to distribution levels have also been facelifted. Utilities have for some time been building their new substations with attractive low-height and modern designs which blend more effectively into their surroundings and enhance neighboring property values.

Turning now to transmission, the problem in putting lines underground is far greater than in distribution. Because underground cannot dissipate the tremendous heat involved in transmission, its cost can be more than 10 times greater than overhead, even where the distances involved are relatively short.

Barring a research breakthrough not now on the horizon, this great cost differential confronts us with the choice of utilizing present transmission rights-of-way to the maximum or duplicating the towers and lines which carry bulk electricity from generating station to community. Clearly, maximum utilization is by far the preferable choice, from the standpoint of appearance as well as cost.

To this end, General Electric has continuously sought to increase transmission line power capacity. Recent steps forward of major significance were the introduction in 1961 of a power circuit breaker which operates in one-thirtieth of a second and the subsequent development of the highly sophisticated series capacitors in use today across the Nation.

Simultaneously, several utilities have doubled the voltage ratings of their lines with modest changes in existing structures, increasing the power handling capacity by a factor of 4 to 1. Also, some utilities have been able to make use of existing railroad rights-of-way to bring power into urban load centers, a development which permits trains to be electrified at reduced expense, and makes it possible for the rails to move people and goods with increased speed, safety and convenience.

Even greater advances in power transmission and distribution lie ahead. Research and product development throughout the electrical industry will not only keep electricity the consumer's greatest bargain, but will also bring about new technologies and equipment with the optimum combination of usefulness and beauty.

The utilities and electrical equipment manufacturers, in the progressive tradition of their industry, have never failed to respond to a significant challenge. The restoration and preservation of America's natural beauty is such a challenge.

ZACH R. STEWART. Considered as a complete system the physical plant of the electric utility industry represents a fascinating design problem; technically extremely difficult, economically involved in major investments, and physically composed of a mixture of the most advanced as well as technologically obsolete components. For the purpose of definition the design of the physical elements of this industry can be called the architecture of energy. This encompasses all distribution and transmission systems, generating plants of all sizes from dams and powerhouses to local peaking generators, substations and switchgear, television antennae, electrical distribution and transmission hardware, and television and radio transmission towers.

The comprehensive approach generally advocated by the delegates to the White House Conference on Natural Beauty, if directed to the architecture of energy, would encourage an enormous amount of progress toward beautification of the current and future installation of all the components in the Nation's electrical system. Transmission line right-of-way placement, miniaturization of parts, development of underground and overhead systems, camouflage or redesign of television antennae, and the visual impact of present and future utility systems on different urban, suburban, and countryside landscapes need improvement.

There is every evidence that the Nation's electric utility companies are vitally interested in improving the architecture of energy. Several western utilities have formed a utility appearance committee; Allis Chalmers sponsored a national art contest called "the Art of extra high voltage"; Kaiser Aluminum News published an issue on "The Aesthetics of Electric Distribution"; the southern California Edison Co. placed in service transmission lines designed by the industrial designer, Dreyfuss; the Pacific Gas and Electric Co. has designed and is installing the streamline distribution system; Portland General Electric has developed the Somerset system; and the Long Island

Lighting Co. has published definitive information on the cost of overhead to underground conversion.

The most practical and efficient way to release information and talent directed at the problem of improving the architecture of energy would be the sponsorship of a national competition addressed to all utility engineers, planners, landscape architects, architects, and citizens, sponsored by the utilities, their suppliers, and beautification and conservation organizations. The purpose of the competition would be to increase the usefulness and beauty of all elements of the physical plant of the electric utility industry. The harvest of ideas from such a competition plus the generation of interest in the subject would yield rich dividends.

CHAPTER 14

AUTOMOBILE JUNKYARDS

1:15 p.m., Tuesday, May 25

The Chairman, Mr. HAAR. This panel with its rather unfancy title "junkyard," cuts across all the other themes that have been raised at this Conference on Natural Beauty. It deals most obviously with the highway problem; it deals with the city, since in many places, it is a city problem; it deals with the landscape and the rural areas, as well.

And, of course, it is an area of great concern for citizen participation and for citizen action. In a way, the automobile junkyard is symbolic of the entire proceedings here. It is the one clear and present danger. It is the obvious sore often picked on, perhaps at times unwisely. It has become a symbol and a legend of what happens in an affluent and technical society. It typifies the problem of disposing of discards which a higher, continually higher, standard of living has made possible.

This panel is composed of members of industry, those who produce and dismantle automobiles. In a sense, we will be dealing with the recycling process, one which epitomizes what President Johnson has said of the need of cooperation between government and industry and the citizen.

I need only remind you of the references made in the message on natural beauty which has been distributed at this conference. Several times the President alluded to the urgent need to work toward the elimination or screening of unsightly views and the need to destroy junkyards and auto graveyards along our highways. And Mrs. Johnson in an interview placed automobile junkyards No. 1 on her priority list of the uglies to be gotten rid of.

Members of the Panel on Automobile Junkyards were Roy Abernethy, Charles M. Haar (Chairman), Harry Marley, Raymond E. Morris, James Owens, Richard Sentner, and Paul Zinner.

This panel must wrestle with the whole spectrum of what we mean by beauty, but in a microcosm. This has an advantage, as well as a disadvantage. It meant we had to get down to brass tacks. In principle, everyone is agreed upon beauty and how a great society has to reflect its achievements and its goals and its physical setting. When it comes to issues of who is to bear the cost or how to do it, we begin to see the need for give and take and for the cooperative action necessary if this problem is to be eliminated.

Some people have said that the untidiness reflected by the automobile, the abandoned hulk, and the automobile graveyard is part of the growth of the industry in its early cycle. The President has told us there is now a more mature insistence on having a higher standard of environmental maintenance and has asked us to deal specifically with the disfigurement and the eyesore of the nonoperative and the abandoned automobile and the junkyard. I think I can speak for the panel in saying that here there was complete agreement. We would like abandoned cars out of sight. This left us with some "minor" decisions. Who will do the job? And who will pay for it?

I think I am speaking for the panel here, that we would have an ideal solution to the problem if we could recycle the whole process, from automobile manufacturer to its use, to its obsolescence to the wrecker, to the scrap processor, to the steel mill, and then to the automobile, again, obtaining a survival of the new car like a phoenix. We would avoid government regulation and government subsidy, if we somehow could get the market operation working, and we would get rid of the problem of the abandoned cars in city streets and of the graveyards and inventories. There was a great deal of interest in the possibility for rather quick action here which would eliminate the problem.

I think that the panel we have here is conversant with this economic cycling problem. It will shortly illuminate you on that, and, on what seems to be a need for Federal action in order to expedite the market process, on the need for State and local action, in terms of a regulation and subsidy.

Mr. MARLEY. I agree with you that we don't particularly like the title of this panel, because we like the word "scrap" rather than "junk." Perhaps at the conclusion of this session all of you who are here will realize the difference between junk and scrap. The junk dealer is the man with a little truck—it used to be a

wagon—who picks up rags, bottles, and some metals, both ferrous and nonferrous, and brings the metal portion of it to the scrap processor. The junk dealer has very little money, either in land or in equipment. The auto wrecker is of two kinds, the licensed, legitimate auto wrecker, who sells parts that are purchased by people who can do their own repairs and the casual auto wrecker who has a yard where one can go with his wrench and chisel and take his part. He is the man that is causing a great deal of the problem for us today.

In an effort to reach a solution we in the iron and steel scrap processing industry held our own national conference on auto salvage here in Washington last year, to discuss what could be done about the vast volume of old cars which faces us today, and the problems of beautification which these bring in their train. We in the Institute are the scrap processors who chew up the old cars and get the material back to the steel mills and the foundries, where it is remelted to make new steel.

We are disturbed at the spreading blight of auto graveyards and the increasing abandonment of old cars on our streets and our highways. We can see a good use for this scrap not only as businessmen who process the raw material, but—and I stress this—as conservationists, who feel strongly that every effort should be made to use this material. It represents iron ore, coal, and limestone wrested from our dwindling natural resources. And it can be used in greater quantities as scrap, if means are found to speed up the flow.

Our people every year handle some 35 to 40 million tons of processed steel and iron scrap for domestic and foreign use. We could handle more. We want to handle more.

We feel the beautification of auto wrecking yards can be accomplished. For example, Federal and State highway departments should immediately move to use funds through Federal road programs available for landscaping to purchase strips of land along the roads to screen the yards or to make it possible to move graveyards to other locations.

We believe it will help if the yard operators are given some incentive to do the job on their own and that they should be permitted to move where this is necessary. Beautification and removal of old cars to new locations, however, are of themselves not enough. As a basic resource of this Nation, this material should be recycled to steelmaking in greater quantity.

The suggestions I now offer relate to five areas affecting this problem. First, the need for increased steel mill consumption. Second,

the faster movement of old cars to scrap processors. I refer to my own industry. Third, the need for research to promote use of automobile scrap. Fourth, the provision of loan funds to speed installation of modern equipment and adaption of new techniques; and, fifth, the elimination of restrictive influences on the quick movement of old cars to scrap yards and to the steel mills.

President Johnson in his message on natural beauty said, "Economic incentives may be needed to bring a solution to the junk car problem."

We agree. This is our suggestion for the steel industry. Use the tax structure now existing. Give mills and foundries an opportunity to write off a greater proportion of the cost of using automobile scrap. For example, if a steel mill buys prepared auto scrap for \$25 a ton, it could be allowed to write off as a cost of raw material the \$25 plus another \$5 or \$10. This could be applied as a credit before taxes. It would be granted only if auto scrap consumption at the mill exceeded that of the selected base year.

We have talked with Lukens Steel, one of the major steel companies and, incidentally, an integrated mill, about this approach. They told us unofficially, if such an incentive program was offered, it would encourage them to consider how they could increase the use of auto scrap.

Ugly, unlovely, old cars are a resource and should not be wasted. No sound economy can be built, no nation can flourish if it wastes its resources. The ultimate and real solution to this problem lies in getting old cars back into the scrap cycle faster and in larger quantities than ever before.

Mr. OWENS. The eyesore problems connected with junk automobiles, in our opinion, have so many facets that no single approach will provide the final solution. The search for the answer thus requires the concerted efforts, not only of the auto wrecking industry, but also government working with the groups involved.

It is on these joint efforts that I would particularly like to concentrate my remarks.

From a public policy standpoint, we start with the premise that the conservation of natural resources is a desirable end. Economic solutions are preferable to those which are wasteful or costly, even though the latter may provide an easy, quick answer. The dumping of cars into the ocean or the burying of compressed car scrap are

both wasteful and costly. The use of car bodies for land fill is costly, though less wasteful.

The basic solution would appear to be one which can make use of the automobiles as scrap in the production of iron and steel. Each ton of scrap consumed conserves more than 3 tons of primary materials.

As you know, a good many automobiles are already used as scrap, in the form of so-called No. 2 bundles. These bundles have the disadvantage of containing contaminants in the form of certain non-ferrous metals which make them of only limited acceptability to steelmaking. If the quality and price of automobile scrap can be improved, we are on the way to solving the junk car problem.

New scrap processing methods give promise of providing a solution. The strongest possibility seems to lie with shredding. In this type of scrap, contaminants can be reduced to technically and economically feasible limits for steelmaking. Shredded scrap is used in a number of electric furnaces. Today the extension of its use to other types of steelmaking furnaces is evidently only a matter of economics, time, and experience.

The government's most important role in working with industry for solutions to the junk car problem would seem to be in fostering the greater use of automobile scrap. How can this be accomplished? There are a number of things government can do.

First, through low-interest loans or tax incentives, the government could encourage the establishment of shredding plants and other processing methods which will improve the quality of automobile scrap.

Second, the government can encourage research, in economical methods of using more scrap in basic oxygen furnaces, in new uses, and in further improvement of the quality of automotive scrap. Although shredding represents a vast improvement over No. 2 bundles and is considered to be of high quality, it may not represent the final answer to the processing of automotive scrap. The Interior Department is already working in this area.

Third, the government can look into the matter of railroad freight rates on scrap, to determine whether existing rates are a deterrent to its economic use.

Fourth, the government can work with industry to promote exports of auto scrap.

In the matter of auto abandonments, cooperative efforts between the Federal Government and local, county, and State governments

can be directed towards the establishment of better titling laws and identification procedures to reduce car abandonment and toward the liberalization of statutes requiring local governments to hold abandoned cars for lengthy periods. This will greatly reduce delays in the movement of abandoned cars into the scrap cycle. In any local or State government decision, care must be taken to avoid actions which may later prove to be unsound. Such organizations as the Council of State Governments and Mayors' Conference can be helpful in this regard.

There are, undoubtedly, many other ways in which government and industry can act cooperatively toward a solution of the junk car problem. I know I speak for all parts of government when I extend a sincere invitation to you to present your ideas on solutions to this national problem.

Mr. MORRIS. When we consider the problem of junked and abandoned cars, it is imperative that we define the various industries which have been grouped under the junkyard category.

1. The junkyard is the place where items which have lost their original usefulness are collected and stored for future sale as secondary or waste material.

2. The scrapyards are where scrap materials are purchased for processing and sold to the steel mills as an important ingredient in the making of new steel.

3. The auto graveyard, properly defined, is where cars have been abandoned and left to disintegrate, such as at gas stations, body shops and garages, streets and highways, farms and open spaces.

4. The auto wrecking yard is where cars are purchased and dismantled for the main purpose of salvaging good usable parts for resale. It also provides the main source of supply for the automotive parts rebuilders. The residue, those parts of the car for which there is no further parts reclamation, is sold as scrap. The auto wrecker is primarily in the retail business. Seventy-eight percent of the cars in his yard are purchased for their parts value.

The National Auto and Truck Wreckers Association is quite cognizant of the necessity of keeping America beautiful. Four years ago, it inaugurated its own beautification program, encouraging its members to improve the appearance of their places of business by means of fences, planting of trees, painting buildings, etc. It has been instrumental in setting up community programs in many cities and towns.

The members of this association are very much aware of the problem of the junk and abandoned cars and want to do whatever they can to help remedy this situation.

There are about 8,000 auto wreckers in the country who handle 6 million cars per year. The reason why so many of them do not take in the obsolete and junk cars is because the cost of handling, storing, and preparing them for sale to the scrap processor is too high to make this practical. Also, these cars take up more space than the auto wrecker has. The average size of the auto wrecking yard is eight acres. In heavily populated areas it is about two. Where land is plentiful and inexpensive it may reach 30 acres. His parts value or later model cars occupy all the room he has.

The auto wrecker's yard can only hold so many cars, with the result that the number of cars he purchases each year equals the number he dismantles and sells to the scrap processor. On an average, a car remains in the auto wrecker's yard for a period of 12 months, ranging from a low of one day to a high of four years. The average age of the car in the yard is 6.9 years.

In many areas, because of air pollution controls, the auto wrecker is not allowed to burn the chassis, which is necessary to remove the impurities, such as glass, rubber, upholstery, nonferrous materials, etc., so that they will be acceptable to the scrap processor.

The distance from the scrap processor, which in some cases is as much as 300 miles, makes the transportation of auto hulks financially impossible.

Technological changes in the production of new steel have lessened the demand for automotive scrap.

Many States require a great deal of red tape in order to clear the title of the abandoned car and it costs the auto wrecker too much in time and money to handle these. In the majority of cases, he must hold them for a period of 90 days before he can dismantle them and prepare them for the scrap processor. There are ten States which do not have certificates of title, where there are 13½ million registered cars and trucks and where car abandonment is high.

The last owner of the vehicle is responsible for the abandoned car. When he cannot get a price for his junked car, rather than give it away he just abandons it.

I am not attempting to whitewash the auto-wrecking industry or trying to create an image that is not real, but we must look at this problem from a practical standpoint. We admit that the auto-

wrecking yard is not a thing of beauty but neither are so many other vital industries. The auto wrecker serves an important role in the economy and safety of his community as well as the country at large. With 85 million cars registered in the United States today, and with new car production reaching the 9 million mark, the auto wrecker is still scrapping 6 million cars per year. As the population of the country increases, so does the number of cars on the road. What is more, of the 80 percent of the people who own cars, 22 percent of these own two or more, and this trend is rapidly increasing.

On the economic side, the auto-wrecking industry is a home-owned business. It employs thousands of workers who earn and spend their salaries in their own communities. The auto wreckers serve a vital need, not only in the community, but in the Nation as a whole, by supplying used parts to motorists who either cannot afford new parts or, in many cases, are unable to obtain them from the car manufacturer. Millions of dollars are reclaimed by insurance companies who sell the "total loss" wrecked cars to the auto salvage dealers. The scrap the auto wrecker produces goes into the making of new steel and automotive scrap ranks second in supply of scrap metal for new steel production.

The auto-wrecking industry's participation in keeping America beautiful is twofold:

1. To try to find solutions to the problem of the abandoned and junked cars so that they will not be a blight to our country's natural beauty.
2. To improve the appearance of their places of business in order that they become more compatible with the surrounding areas.

To accomplish these goals, I would like to make the following proposals:

1. That the States modify their motor vehicle legislation to provide a faster and less complicated method of clearing titles to cars which have outlived their usefulness as operative motor vehicles.
2. To find new methods of disposing of automobile hulks faster and more economically through the development of inexpensive car flatteners, portable balers, and the like.
3. Further development of scrap-processing equipment which will result in upgrading the quality of automotive scrap so that it will be more acceptable to the steel mills and, as such, will be in greater demand, thereby speeding up the flow of the automobile scrap back to the mills for future production of new steel.

4. Closer accessibility to scrap-processing centers to speed up the flow of auto-body hulks from the auto-wrecking yards which will reduce the high cost of transportation.

5. Developing an educational program so that local authorities as well as the general public will be aware of the fact that the auto-wrecking industry is both an asset as well as a necessity in their local communities—that it is primarily in the business of dismantling wrecked and older cars for the purpose of salvaging good usable parts for resale—and as such should be given the same consideration as any other business which is licensed by its local community.

6. Awareness on the part of local authorities as to the high cost and complexities of removing, storing, and dismantling of wrecked or obsolete vehicles so that more realistic and practical zoning and screening ordinances can be developed.

7. A continued effort by the auto-wrecking industry in cooperation with local citizen groups in sponsoring cleanup and beautification programs.

Making America beautiful is something every citizen wants. Conserving natural resources, keeping cars running through the use of used parts, and insuring a steady flow of the scrap back to the steel mills for future production, are all necessary functions of the auto-wrecking industry and are essential to the economy of our country.

Let practicability rather than emotion be our guide in solving this very important problem.

Mr. ABERNETHY. Although I speak as an individual and not as an industry representative, I know from my conversations that the people of the industry I am in applaud the President for the attention he has focused on the need for action to preserve America's beauty. He has already turned an essential key.

In a number of areas we appear to have approached a point of no return and in other areas we are late in concerted attacks on problems made much more difficult by our accelerating growth. The junked vehicle stands out because of visible accumulations, lack of adequate shielding, delays in the disposal process and other factors.

It stands out also by its contrast to the enormous contribution the motor vehicle has made to our economy—and, in fact, by the accessibility it has given to the beauty we seek to preserve.

The junked vehicle is a blight on beauty in many localities, and it tends to symbolize the vast problem of solid waste disposal by a

great society. This entire problem needs attacking with a sense of urgency.

We can be greatly encouraged by certain developments. Innovation has speeded the process by which hulks are converted into acceptable scrap and gains in this area have enormous promise unrevealed only a short time ago.

Likewise, important strides have been made by private industry in the improvement of wrecking operations, both aesthetically and economically.

The movement of acceptable scrap is making great gains. Of course, the ultimate answer in this area is economic. We can be hopeful without basing conclusions today on predictions for tomorrow.

Specifically, we can encourage Federal and local action that will alleviate blights on beauty. The zoning regulations and proper shielding can be very effective in this respect. (We should note that in the long run, however, many screening efforts should not be regarded as a final answer. Out of sight will not always be enough.)

We can improve our vehicle titling and disposal laws, as you have heard others say. This process is not effective today in many parts of the country, and barriers to the movement of the vehicle from the final owner to proper disposition greatly inhibit the efficiency of this process.

We can encourage private industry in its strong efforts to upgrade the appearance and efficiency of wrecking operations, which are very important economically, by appropriate regulations for licensing.

We may increase the speed with which ingenuity is advancing the reduction process by encouraging tax and perhaps other advantages that will stimulate the use and development of more or better tools.

We should stimulate research into solid waste disposal and reuse of resources, both on a private and governmental basis. All of those most closely identified with the basic problem can be expected to participate in its solution with more intensive inquiry and inventiveness.

It is my feeling that this is a problem of national scope, affecting everyone. Its answers are multiple, and not limited to any sector, however important economically. No economic group can be given unwarranted reward or burdened with unwarranted expense as the problem is attacked.

It is being attacked, and it is evident that the attacks are gathering speed, impelled by competitive effort and voluntary cooperation. We should encourage the efforts that are gaining important headway, undertaking the specific steps that we know will be of benefit and avoid major diversion toward unknown or questionable trials.

Movement is apparent and our primary need is to give it sustained momentum with Federal and local attention, which, in turn, will stimulate the efforts of all who are concerned with the natural beauty of our Nation.

Mr. ZINNER. Although natural beauty is both the theme and the ultimate goal of our conference, I think to attain our objective, we must face and deal with cold and hard economic facts.

The forces that encourage the accumulation of automobiles, refrigerators, washing machines, and other mechanical devices that have lost their original usefulness are primarily economic forces, as other members of this panel have already stated.

Similarly, economic forces discourage prompt reconversion of this growing mountain of obsolete material to some new and usable form.

Ideally, the normal cycle of junk disposal includes some salvaging of resalable parts and utilization of the remainder by an established scrap trade.

The ugliness and blight associated with the normal disposal cycle arises mainly from the length of time required to complete it.

The auto-wrecking yards and the automobile graveyards in and around our urban centers are only the most visible facets of an involved industrial and essential service complex.

The abandoned hulks accumulating in rural areas and, too often, even on city streets, rarely enter the disposal cycle directly because there is little economic incentive to move them to central depots.

Projections of our population growth and our rapidly expanding economy foretell that no simple scheme of fencing or planting can long contain the growing volume of these discarded items.

Accordingly, it seems apparent that long-term solutions to the automobile junk blight will be accomplished only when improved or new use-patterns are developed that encourage and also hasten the reuse of scrap.

At present, the rapidly changing technology of steelmaking has dislocated established marketing patterns for this major class of scrap.

Both industry and government are seeking ways to establish new patterns and are exploring new measures to employ the scrap in useful processes and products.

Towards this end the scrap industry is making progress in providing a dependable market for junked automobiles and for the stripped chassis that is the end product of the parts-salvaging business.

The industry is also beginning to reestablish some markets for its product by improving its processing and handling methods.

The government, through the Department of the Interior, has initiated two intensive programs designed, first, to develop and demonstrate new uses for auto scrap and, second, to disclose incentives that can be effective in stimulating a more rapid movement of scrap within the traditional marketing pattern.

Both efforts are now being substantially expanded.

President Johnson has strongly endorsed these departmental programs and has recommended to the Congress the appropriation of additional funds to support them.

Under these programs, the department's Bureau of Mines already has developed one process that promises a substantial new outlet for automobile scrap in a system of concentrating and reducing low-grade iron ores that so far have not been used commercially.

A single commercial-size plant, employing this process and designed to produce 5 million tons of usable iron concentrate annually would require, for example, more than 600,000 tons of scrap per year.

All of this metal conserved would in this fashion be recovered, together with the newly produced iron, and reenter the steelmaking cycle at the initial stage.

We propose to perfect this process and urge its commercial adoption.

The Department of the Interior, again through the Bureau of Mines, also is getting ready to explore several entirely new ways for effectively employing auto scrap.

One process, for example, involves the production of an extremely pure oxide that can be used in preparing a premium product for blast-furnace or other forms of consumption.

The volume of auto scrap marketable through this process would be limited only by the range of economical transportation.

Another process scheduled for development work involves the preparation of auto scrap for use in the recovery of copper metal

from low-grade ore and tailings, technically described as the cementation of copper from leach solutions.

In view of the growth of such copper leaching operations, it seems possible that the entire supply of auto scrap within several hundred miles of a leaching plant could be consumed in this type of application.

In still another investigation, melted auto scrap would be treated with selected additives to make it suitable for use in foundries.

Among the other investigations which we are contemplating, are the feasibility of producing mild steel from scrap by electric furnacing practices, and research on chemical processes by which impurities might be economically removed from auto scrap, thus suiting it for still other uses.

The results of this work will, of course, be made immediately available to the steel industry and the scrap producers.

Secretary of the Interior Udall has directed the scientific and technical personnel of the department to cooperate fully with those industries in the application of new processes or the improvement of traditional practices that promise any improvement in the scrap use cycle.

However, a substantial improvement in the scrap use cycle will not, in itself, eliminate all unsightly aspects of the junk disposal sequence.

As shown by the excellent studies completed by such groups as the Institute of Scrap Iron and Steel, a variety of incentives has been suggested that might more effectively accommodate automobile disposal processes to our environment.

Moreover, it would be naive to assume that changes in technology will not create even greater and certainly different disposal problems in the future.

During the next few months we propose to look into the incentives that might prove most effective, in the long-term, in minimizing the blight, while insuring an effective disposal process.

This will be done in close cooperation with the other agencies of the government and with the appropriate scrap, steel and transportation industries.

We intend also to strengthen our efforts to relate immediate or foreseeable changes in the nature of available scrap, and in scrap-consuming practices, to the ultimate disposal processes.

In conclusion, we believe it must be recognized that, while the Federal Government has an obligation to assume leadership in seek-

ing solutions to a problem that is nationwide, there are responsibilities also at other levels of government.

The automobile junk problem must also be attacked at the community level, and we will doubtless hear of such actions from some of our other panel members.

Mr. HAAR. In a letter written by Mr. Justice Holmes to Byron Pollock, he once said, "Two philosophers can tell each other all they know in half an hour." You have heard from a panel of five philosophers in only a little more time than that.

I wonder if at this time I could summarize very quickly what seemed to emerge as the consensus of the recommendations that this panel would like to make. They don't bind anyone individually, and some of them were supported more strongly than others.

Our panel said, first, that private industry should be given added impetus through tax credit and other subventions, to invest in new equipment and technology, such as the new shredders and flatteners. To be more specific, it suggested that the Small Business Administration should authorize and set aside a special fund allowance of \$25 million in order to help finance the purchase of equipment or screening.

Our second recommendation went to the ICC in terms of their adjusting their rates for the transportation of automobile scrap to remove inequities, if any.

Third, we recommended the development of a series of model laws which should be developed, a special certificate of title laws to shorten the time needed for investigating titles to abandoned vehicles within a shorter period of time than is now possible.

Fourth, we recommended a variety of State grants-in-aid programs from the Federal Government in order first to acquire and set aside depots for the concentration and storage of processed hulks; second, to assist in financing screening and other aesthetic devices; and third, as part of the general solid waste disposal program now being carried on, which would assist in the pickup and disposal of abandoned automobiles.

Next we thought the Federal Government had a special area of concern, where direct and indirect Federal expenditures were involved.

One of these was the unscreened wrecking yards along the limited access interstate highway system, and the ABC system. Second was the policing of approaches to national parks and monuments to

provide for the screening or removal of any wrecking yards in those areas. And finally, as part of the general effort launched by Mrs. Johnson in beautifying Washington, D.C., we believed that the wrecking yards in this area should be made compatible with the neighboring land uses.

Our next recommendation—and you notice how free and easy we are in advising people—was that the State and local governments should undertake effective land use planning for the auto-dismantling industry, making available model laws and case studies of successful operations. Planning and zoning for appropriate location of the yards indicate that a law for licensing of auto wreckers would be useful in some instances.

We suggested that it would be appropriate to reexamine the State personal property tax on the scrap market value of hulk held in inventory to encourage their sale or movement.

We believed a pilot program would be worthwhile in transferrable disposal certificates attached to the title, and refundable when the car is disposed of.

Next, as an analogy of Public Law 480, we thought a pilot program for cars for peace, the export of cars that are still operable to areas where labor costs were low, should be inaugurated.

Next point, we thought Federal grants should be made available to civic groups and industry associations for the purpose of a cleanup and national tree-planting campaign. And finally, that the Federal Government should encourage and cooperate in an expanded program of government-industry research, which has had such high payoff in seeking new uses and improvements in current uses for automobile scrap.

I think you can see that in this broad and specific program all components of industry were called on to undertake certain costs for the general benefit of us all.

Questions and Discussion

Mr. HAAR. I wonder if I could start our question period with one general question. One item that we discussed at great length was whether the automobile junkyard and the abandoned car are an external cost of the industry, and whether the automobile user and manufacturer should not therefore be looked upon as the proper source for bearing some of the necessary subventions and subsidies.

We are dealing with the obsolete car. Cars, like all of us, will come to the end of the road and this is a proper cost that should be borne by the user. This question, indeed, is prompted by the present action of the Congress with respect to the excise tax. Should not some portion or a new tax be segregated for the strictly limited purposes of dealing with automobile junkyards?

MR. ABERNETHY. Of course, we believe that the excise tax is not a user's tax. The only other comment I could make is that the users, as you well know, are paying well above their share in one way or another for highway improvement. We feel that the excise tax was discriminatory and the plan that came out of the committee just recently for the elimination of it is in the right direction.

The user is paying a lot to use the roads and highways. The figure given is \$2 billion more than the normal amount expected.

HARRY E. INGWERSEN. I would like to speak not so much of what might be done, but of our own experience with what has been done. I would like to say, first, my remarks are directed or perhaps influenced by an exhaustive study of a report prepared by Mr. Owens and other members of his group, who should be very much congratulated. We feel, as has been said, that scrap or junk automobiles rightfully used are a national resource. If properly processed, they can well return to the furnaces of our steel mills and foundries.

At the present time, I understand there are two methods or machines that do this. One of them has been installed adjacent to our plants in Kansas City, Mo., and Houston, Tex. The scrap has been found to be excellent. In Kansas City, we have nothing but electric furnaces. In Houston, we have both electric and open hearth.

From that experience, we believe scrap so processed can be used in either type. One drawback is perhaps the cost. It represents a major capital investment, but I believe there are methods now, some perhaps even in use, that put the same type of process within the reach of the smaller scrap processor throughout the country. We feel that, if this can be developed, a great step will have been taken in eliminating and putting scrapped automobiles into normal commercial, industrial channels again.

RAYMOND JONES. I represent 546 of the 1,600 salvage units in the State of Texas. We are citizens engaged in a business that is neither dishonest nor degrading. We are not the culprits who have

made off with all the beauty in this great United States. We are merely the end of a line of some six million automobiles, that will come off the highways this year. I would be the first to admit that there are those in my industry who make little or no effort to beautify their salvage yards, but certainly there are other businesses just as unsightly. A large number of these dealers are in the parts salvage business, paying from \$100 to \$1,000 for late-model wrecked automobiles for salvage. This is our stock, just as the department store stocks clothes. We have little or no interest in obsolete automobiles.

MICHAEL R. FAGAN. I have heard discussions on both taxation and State regulation. There are a couple of observations that I would like to make.

The easiest, I guess, would be on regulation. I think there is a crying need for coordination and reevaluation of overlapping State regulation, and I think your committee should come out with a resolution to investigate and iron out these differences. As an example, in the State of California it is possible for an applicant to secure a license which directly violates the local law, zoning.

As an example, a downtown department store can meet all the criteria for the issuance of an auto-wrecking license as a normal function carried on in the basement bargain center, while the very location of the department store is in a commercial zone. This, of course, is an easy example, but there are other more technical examples.

In the area of taxation, I have met with the Inland Auto Wreckers Association, who operate in our particular area, and they have pointed out that there is apparently a trend of change in the type of auto wrecking activity normally associated adjacent to urban areas where the dismantling and holding of the vehicles is eliminating itself from the scene because of the high rate of taxation.

There has been indication that these businesses will seek reevaluation under taxation as a commercial use, because of the percentage of their businesses being used for retail outlets. Heretofore, we have always considered auto wrecking as an industrial use and consequently have taxed them on that basis.

The third and final point is what happened to the auto wrecking yard along the main street of a town, where the interstate freeway has bypassed this small community, where zoning cannot be applied retroactively.

The Federal Government may have to encourage and put money in the local communities to provide for the relocation of the facility

and improved standards, and I think this conference should come up with a series of recommendations that support that thinking.

Mrs. CYRIL FOX. I have been in touch with Mr. Wolfson. I have a file of very fine material that resulted from your conferences, and one thought keeps recurring, that the automobile industry, in general, is opposed to a tax at the source. I don't know whether you call it an excise tax or whatever. But it would seem to me it is penalizing the municipalities to have to pick up these cars and take them to the processing centers, and I don't think that is quite fair. I think the original purchaser should possibly share that initial tax. After all, it is his responsibility and he is the original purchaser. I heard Mr. Abernethy express disapproval but the thought keeps cropping up. We would like to know, we want guidance, because we are working in Pennsylvania now on an automotive junkyard law in our legislature. We don't think screening is the answer, because too many are on hillsides and our highway departments tell us the cars come all the way to the edge of the road, and that there is no room for screening. I can see a lot of sick trees being ugly, too, uglier even than the junkyard.

We would like to be informed on that, please.

Mr. ABERNETHY. I stated in my opening statement that the problem was of national scope affecting everyone. The answers are multiple and not limited to any sector. I do not believe the excise tax has anything to do with it.

SAM PROLER. As a citizen, I am not in favor of any taxes of any kind on getting rid of cars, whether it is the individual or the company that makes it or in subsidizing wreckers, junk dealers or steel mills as well. I think the problem, basically is a minor one; while the problem stands out in everybody's mind, the greatest majority of the cars move to scrap dealers on a constant basis, as Mr. Marley mentioned. About 30 million tons of scrap are produced each year. A very small fraction of this amount has actually become an eyesore.

Six words, namely, means to speed up the flow, is really needed here. That is a physical job and is not going to be cured with subsidies and taxes. The tools to do this with are on the verge of being available in the immediate future.

Mr. MARLEY. Mr. Proler, I wonder if you would be kind enough to tell our audience some of the figures in regard to the new processes

developed originally by you and by others, which have had such impact upon the scrap processing industry.

MR. PROLER. At the present time, we are processing through four plants with our associates, approximately 15 percent of all the cars produced in 1955. This is about the vintage of the cars that hit the scrap yards at the present day, approximately 11 percent of cars being manufactured today.

MR. MARLEY. There are others in the same business.

MR. PROLER. Experimenting and doing the same thing.

FRANK SMITH. The salvaged cars we buy cost from \$250 to \$700 apiece. It saves Texans on their insurance premiums. We feel like we, too, are a part of this Great Society. You figure out a way we can get the price of this scrap up and I will guarantee you that these junkyards, as you call them, up and down the road—which don't include places like the ones that the 500 members in our association run—will be cleaned up. If you will get the scrap price to exceed the labor costs, they will be cleaned up.

TERRY FISKIN. We have a suggestion at this point that might save money for the Federal Government, instead of costing it money, which has been the approach in most of these panels. California has more registered vehicles than any other State and probably more dismantlers per square mile than any place else. We are moving the cars. Our average time is 90 days, not a year, for storage of our cars.

We have proposed legislation in the State of California to speed up the flow of documents as far as the time element is concerned. The department has come to us and asked us to help and we have given it some of the things we have tried out which have worked out and might be a good model to use throughout the United States and to speed up the whole process. Also we have made advances in individual screening. We have ways of doing it very cheaply and also expensive ways.

CONRAD WIRTH. I own one of the seventy-five million cars now on the road. And I am also interested in the landscape, because it is a part of our country. I am perfectly willing as a car owner to pay a little bit more to see my car is given the proper burial and does not disturb everybody else. I make the suggestion that each title issued to a car have a certificate on it, and that certificate be worth \$100, and when you turn in your car, you get your \$100 back.

In the meantime the government has the \$100 and invests it. These earnings over the lifetime of the car would be given to the proper State authorities charged with the responsibility of disposal of old cars.

The industry says it is disposing of the cars in 30 days but there are a lot of junkyards across this country that have cars that haven't been moved for years. I have gone through one section of the country for five years in a row, and the yards are getting bigger and bigger.

HENRY D. HARRAL. I am a little disappointed in our manufacturers, who feel no responsibility for either improving the arrangement of our highways or getting rid of some of the difficulties when the car disappears. It would seem to me that the automobile manufacturers ought to be perfectly willing to work with the people both in taking a part of this excise tax for the improvement of the highways, which benefit them, and also be a party to the assistance in the disposal process. Mr. Abernethy merely says he is against excise taxes, which I don't think is enough of an answer.

MR. ABERNETHY. I think you misunderstood me. I said it is a problem of national scope. I don't think excise taxes belong in this particular group. It affects everyone and the answers are multiple. By this I tried to indicate a complete cooperation, not limited to any sector. There is no economic group that can be given unwarranted reward or burdened with unwarranted expense.

I think it is a rather total problem. I am sorry you misunderstood me on that.

MR. HARRAL. I still don't understand you.

RALPH LOCHER. Our problem is the one that was pointed out here before, that the price of scrap doesn't seem to be high enough. When we put up these cars for sale, even though we make steel in Cleveland, nobody wants to bid on them.

If we have a problem with detergents (and here I agree with my friend), we would not blame the sewage disposal plant. Because detergents are pollutants, we go to manufacturers of detergents and say, "Don't put them in soap, because they are harmful to fish life and whatever they do to pollute rivers."

Here we have a problem that has to do with the automobile. If the price of scrap is too low to warrant scrap dealers buying the cars, why don't the big five of which Mr. Abernethy's company is one,

perhaps subsidize their disposal, either by providing these machines that will scrap an automobile in a hurry, or by contributing a little something, towards raising the price of scrap steel, perhaps from the savings on the excise tax, much as the government does with agricultural products. This would make it profitable to buy Cleveland's scrap automobiles, scrap them, and save this great natural resource.

Someone is going to have to make it profitable to buy the scrap automobiles. I think the logical person or company or firm or corporation is the one which built the car initially. I do believe, Mr. Abernethy, that you and your associates at Ford and Chrysler and General Motors will have to take more responsibility for this scrap program. You initially made these beautiful cars that we are so proud of until they fall apart, which we then abandon on the streets.

A DELEGATE. I expect we are all car owners here. I don't know how many owners there are that have three cars, as I do. One is a Rambler. Also, I am a stockholder of American Motors Co. As a stockholder, I would like to say that I would be perfectly willing to pay whatever share of the tax is necessary to do this job.

LEONARD HALL. I drive about 40,000 to 50,000 miles each year, mostly through rural parts of America. Today there is an area that, as far as I know, hasn't been touched upon here, and that is the several million auto carcasses that are permanently deposited on farms, in the more or less marginal farming areas of the United States. Some of these are used to try to stop erosion in creeks, a totally hopeless use of an automobile body. Some of them just lie upside down in the farmer's yard. Here is a tremendous bar to natural beauty, because this covers all of Appalachia, the Ozarks highlands, much of the Southern United States, and a great deal of the West.

SAM RIKLIN. Do you know of any city that has helped eliminate abandoned cars? In other words, has any city faced this legally through its council? If so, I would like to hear about it, because, on my return to San Antonio, Tex., I am meeting with the mayor and we hope to give him an idea of an ordinance that can be passed in San Antonio, if you can provide me with one.

Mr. MARLEY. I would like to answer that, if you wish. There is a gentleman in the back of the room, associated with our institute, Mr. Venlo Wolfson. Before you leave here, he will give you a copy of two ordinances that are now in the New York State

Legislature, and would be available. It appears they are going to be passed.

He will also have for you a list of 50 laws that have been offered in the United States. We have digested these laws, prepared information on them. They will be available to you.

VENLO WOLFSOHN. There are several cities that have laws about abandonment on their books. The problem with that is enforcement. Invariably, the people who abandon cars are people who can't afford to keep them operating. At our national convention, the city solicitor of Pittsburgh pointed out they arrested six men for abandoning their cars, five were unemployed, and the sixth one just got out of six months in the hospital. So they don't bother to enforce it.

A DELEGATE. Professor Haar, I noted in your summary that your panel would recommend looking into zoning standards, which would be adequate for community protection, and also fair to this very essential industry. Since we must plan before we zone, I hope you will also recommend that we approach this problem with a comprehensive land-use analysis. We need to analyze the processing of auto bodies, and other scrap metal. No matter how fast we process the flow of cars through the yards, we will still need major land areas. I hope we can find out the location of the many different steps in the process, the land area requirements and the necessary environmental controls. To do this, I feel you need research funds.

The URA, Urban Renewal Administration, because of its efforts and interest in land-use planning, could contribute some funds and support. The Bureau of Mines with its research into new techniques in reduction methods, would be another essential agency, and Health, Education, and Welfare, because of its interest in the reduction of air pollution, could also contribute. I would assume that several levels of the industry would also do so.

Mrs. CONNIE QUINN. I have been working with scrap dealers for about five years because of Kentucky automobile graveyards. We had one scrap dealer tell us that he had no intention of attempting to move junk cars out of eastern Kentucky, because he was going to use our beautiful eastern Kentucky hills as his storage yard, until another war came along, or some miracle happened to raise the scrap steel price.

Because of this statement and because of the attitude of the dealers, we passed junkyard legislation. We have just recently requested a research program, through the Appalachian program, to try to develop a portable smasher that could go up through the eastern Kentucky hills where we can't use the large ones. Other States are faced with the same problem. We are hoping through some research we can get a portable smasher that can go up there and move the cars out. We are tired of our area being used as storage space for this so-called natural resource.

MR. PROLER. At the present time there are a number of scrap processing manufacturers that are working very diligently to produce portable and small, stationary, inexpensive car flatteners. This will permit a lot of wreckers and small scrap dealers in villages and small towns who heretofore have not been able to afford the expense of scrap machinery, to scour the countryside and to bring this type of scrap in economically, flatten it, and send it to market.

At the present time the city of Chicago is delivering to an associate firm approximately 35,000 abandoned cars a year. While other large cities are dumping them in the ocean and you might say in gullies and graveyards, the city of Chicago is receiving a great amount of dollars from these old abandoned cars that have been left on the streets.

BENJAMIN SCHWARTZ. I have just a few comments to make at this time. I want to join those who feel that the word "junk" has been a gratuitous denigration of over 50 years of effort spent in raising the standards, and in creating an image for the industry as conservers of natural resources. We think that the old automobile has been taken out of context, since it is only one of the sources of raw material, out of context of the vast economic principles involved in the secondary raw materials industry, and, therefore, has been blown out of all proportions.

We have no objection to the principles of good housekeeping, but if planning goes beyond the screening principle, and involves talk of subsidies, disposal bonuses, and what has been added to the discussion by Mr. Owens from the platform, a fascination, and I call it a strange fascination, with the giant fragmentizers and shredders to be established, possibly with government funds, in competition with the established people in the industry, then we maintain that it is going beyond that principle of screening, and we are, therefore, dealing with the free market. And the free market has not been analyzed or

mentioned, even in the studies that were presented here. Of course, the definition of a free market involves a base—and this is the foundation—of independent and small operators and units, and it involves secondly and equally the operation of the law of supply and demand in a free market. Whether there is a free market which is holding up the flow from the automobile wrecker to the scrap processor to the melting furnace is a question that requires serious consideration in view of the fact that there has developed a concentration of economic power in the industry.

One other point in the form of a critique is that we are making a bits-and-pieces approach to the problems of the industry and dividing up the discussion and the recommendations between advisory councils, task forces, solid waste panels and other ad hoc inspirations, which will cause the industry to fall between many stools.

My final point is that this is not the forum for the consideration of the base of the problem; namely, the free market. It requires a higher study group, because this industry involves three national principles—first, conservation; second, national defense; and third, the preservation of the small businessman. This must ultimately require the attention of the people at the top who make policy and it is our hope and contribution to the discussion that the President should appoint a Cabinet committee of the appropriate Secretaries, with Justice in it, Interior, Commerce, and the Council of Economic Advisers. This committee would study among many problems, first, the trend to monopoly and the place of the independent in the industry, and the effect of this on the free flow of scrap; second, a balancing of the metallics used in the steel industry with the iron ore imports and the natural harvest of scrap; and third, the establishment of a bureau of natural resources within the Department of the Interior, where the primaries are located, and have a direct relationship with the secondaries.

The industry is entitled to a comprehensive approach and not a bits-and-pieces approach to the problems.

Statements Submitted for the Record

Dr. LUDVIG G. BROWMAN. Proposals concerning junked automobiles and other metal junk:

1. To clean up the heritage of the immediate past.

(a) Junk centers should be set up in every State so that junked automobiles, vehicles, and other scrap metal may be processed. These centers should be established by cooperating city-county agencies, and should be financed by these governments, following coordinated State planning.

(b) Mobile junk shredders should be developed by competent engineers and then made available to junk centers on a rotating basis. Such mobile junk shredders would probably have to be located in conjunction with railroads because of their weight, need for a solid base, and the need for ancillary equipment to smash car bodies flat, balers, cranes, etc.

The mobile junk shredders should be researched and developed under the auspices of the Federal Government, and thereafter operated and financed jointly by Federal and State agencies on a matching basis.

(c) A natural beauty service corps of young men should be established. This corps would cooperate with local city, county and regional volunteer groups to collect and assemble abandoned and junked cars into holding lots located immediately adjacent to established junk centers. Cars would be retrieved from bodies of water, streams, lakes, roadsides, streets, alleys, vacant lots, backwoods, etc. They would be held in the holding lots for one month for purposes of stripping and for legal clearance before the shredding process would begin. The service corps would work well in advance of the mobile junk shredder.

The natural beauty service corps could be financed from the sale of automobile parts recovered, scrap metal, and subsidies from State-Federal funds.

2. To obtain legislation for future control of junked automobiles, legislation should be proposed to all State legislatures (i.e., model law), and encouraged by appropriate Federal legislation and appropriations along the following lines:

(a) Persons, corporations, and other legal entities must deliver all abandoned and junked vehicles either to scrap metal dealers or to established junk centers. Owners should be paid the junk value of the vehicle, but should be allowed a certain period of time—perhaps 24 hours—to strip the vehicle for parts. It would then be turned over to the center to be made into scrap metal.

(b) Any person or legal entity having title to a vehicle which is found abandoned or junked and which vehicle is marked, or has an engine number, dated later than the enactment of appropriate legislation, and which vehicle has not been delivered to a scrap metal dealer or to a junk center would be assessed a fine. He would also have to pay all costs for transporting said vehicle to the nearest scrap metal dealer's yard or to a junk center.

SAUL B. COHEN. As opposed to the auto junkyard problem, there is the problem of auto abandonment—on highways, on trails, in hollows, and in parks. An automobile disposal code, on a State basis, seems impossible to enforce, unless tied to the registration of newly acquired automobiles. If all automobile registrations (not reregistrations, obviously) were contingent upon a certificate attesting to the legitimate disposal of the previous automobile registered in the applicant's name, it would be possible to control a large proportion of vehicles that are abandoned, not in junkyards, but in some of America's most beautiful scenic areas.

LYLE E. CRAINE. Mr. Haar, reporting for the panel on automobile junkyards, recommends regional automobile disposal agencies financed by some system of taxes on the automobile user. A more direct method, and perhaps more in keeping with our preference for depending on the free enterprise system, would require (or provide incentives) for the automobile manufacturing firm to take responsibility for disposing of all junk automobiles of its own manufacture. Perhaps a Federal subsidy to each firm to cover part of the cost would be appropriate. However, if the manufacturer were required to stand some of the costs he would find incentive to: (1) Produce more durable cars, and/or (2) innovate ways to better use the scrap, thus inducing a recycling process resulting in conservation of steel, and/or (3) increasing the price of cars to cover cost of disposal which would place disposal costs upon the user in a much more direct and efficient way than a system of taxation.

MICHAEL R. FAGAN.* Much has been said of the blight on our communities' and Nation's highways and, last but not least, in the backyards with regard to the pernicious dumping and abandoning of junk automobiles. Serious consideration must be given to a thorough reevaluation of State and local law requirements which

*This is an extension of the remarks made by Mr. Fagan during the panel discussion.

have given rise to a great red tape barrier hindering the efficient disposal of valueless hulls. Cooperation between the various enforcement agencies is necessary before this matter will be resolved. I urge that the White House Conference on Natural Beauty adopt a resolution which will support my premise: that State and local red tape administration must be streamlined so as to facilitate the efficient disposition of these automobiles.

ELINOR C. GUGGENHEIMER. The all-encompassing problem that faces this country in its efforts to conserve and enhance natural beauty is that of controlling the automobile. This is particularly true in our cities where the increasing majorities of our people live, and will live. The uncontrolled growth of automobile use and of the automotive accessory facilities has desecrated the landscape and polluted the air.

The automobile represents a great good but we are suffering today from unplanned and excessive dosages. The approaches to our cities are made hideous by badly designed shopping centers, surrounded by acres of parked cars; by neon-lighted frozen custard parlors and drive-in restaurants; by second-hand-car lots, and garish service stations. It is time for both management and labor within the industry to join with architects and planners on a nationwide basis to police the automobile and to control its excesses. In the long run the industry will profit. I, therefore, propose a Federal task force to consist of representatives of government; of top management, and top labor in the automotive industries; (both direct and accessory); representation from the AIA; from the Society of Landscape Architects; and from among the top city planners to deal with the complex of problems resulting from the uncontrolled growth of automobile and accessory uses.

Such a group should devote itself to the Federal philosophies and policies that are needed to influence design in the building of the many accessory facilities, as well as in the discussion of the wider range of problems that the automobile, valuable, as it is, has brought to cities. Such a highly appointed task force or commission could prepare zoning models, guidelines and design criteria, and model legislation for localities. It could suggest both the pattern for placement of parking areas and the kinds of landscape designs that would make them less intrusive. No proceedings from a conference on natural beauty should be published without a section devoted to

the serious consideration of the impact of automobiles on our urban environment.

CLAYTON M. HOFF. It would appear from the discussion both by members of the panel and by members of the audience that it is extremely important to move the usable material of scrapped automobiles back into production through the medium of electric furnaces or blast furnaces as rapidly as possible.

Based on my past experience, partially in the metallurgical field, I am under the impression that the price of scrap steel or scrap iron depends both on quality and on supply and demand. Supply and demand is also perhaps a function of time as there have been periods over the past few decades when the demands for scrap were much greater than they are at present and the price was accordingly higher. This situation suggests the possibility of stockpiling scrap, anticipating a future greater demand. The investment tied up in stockpiling, I think, would be a justifiable subsidy.

May I suggest for consideration a method of handling automobile scrap which would accomplish two purposes, the elimination to a great extent of the automobile junkyards and the stockpiling of this type of scrap for future use. This would be to use abandoned quarries, gravel pits, etc., which exist throughout most of our country for stockpiling baled or condensed scrap steel from salvaging automobiles.

Junked automobiles could be brought to the storage point and compacted there but it would seem perhaps more economical to utilize portable shredders or balers and bale the scrap steel at the automobile junkyard site and transport the baled scrap, obviously at a lower cost, to the quarry or storage site.

It would appear that there would be little or a very low rental charge for the use of the quarries or abandoned gravel pits. The baled scrap would be stored in larger quantities out of sight of the public or highway. The unsightly automobile junkyards would disappear or be greatly diminished in area. The conversion operations could easily be confined to a small and shielded area of the former extensive junkyard.

It is also suggested that this method of salvage and storage be not limited to automobile scrap but to all types of scrap iron and steel, including abandoned and rusting farm machinery and the millions of containers that litter our roadsides.

We might, by such a system, be able to salvage much of the iron and steel scrap which is now lost for all productive purposes by being buried in sanitary land-fills or deposited in dumps with or without incineration in many of our suburban and rural areas.

We, as a Nation, have been very profligate with our nonrenewable natural resources. I think we, as a Nation, cannot continue in the future to waste our resources as we are doing now by incineration, sanitary land-fills and other methods of disposal. Systems must be developed whereby reusable materials such as iron and steel, other metals, glass, rubber, paper, etc., may be salvaged from what we term rubbish or trash. The nonsalvageable material along with garbage could be ground, digested bacteriologically and the resulting product mixed with sewage sludge and marketed possibly as a mulch or better, supplemented with the necessary chemicals once converted to a fertilizer of standard composition for which we already have a recognized use and an established marketing system.

Theorizing a bit, it would appear that we have on this earth now as much iron as we ever have had. Our usual procedure is to convert our iron ore to metal, fabricate it into useful products which after use are abandoned, allowed to rust, that is, return to the original oxide form. We have, however, discarded such a large proportion of our used metal so far and wide and in such small quantities throughout our countryside, for example our tin cans along our roadside, that it is no longer possible or economical to collect the scrap iron or the iron oxide resulting from the rusting of these iron and steel products. If all of this disseminated material could be collected and stored as stock, piled in one spot, a quarry for example, it could be salvaged either in the form of iron and steel or even if corroded and rusted in the form of iron oxide. We might in effect be reestablishing our iron or iron ore mines.

This suggestion is submitted for consideration in the hopes that it might offer a feasible and economic method of beautifying our highways and our landscape.

JAMES A. McLANE. In Rhode Island we feel that it is imperative that we do not desecrate our abundantly beautiful America for material gains alone. The heritage and beauty which we have inherited from our forefathers must be preserved. Urban development in America cannot be allowed to press unplanned with no concern for the values of beauty. While there is no clear definition of beauty,

we do have an abundantly beautiful, natural America which must be preserved.

We must all—government, industry, and citizens alike—join in efforts to preserve our heritage. Let us plan with careful forethought the vast projects of destruction and construction. Let us use our vast technical resources to stem this tide of blight by proper planning. Let us retain our natural beauty so that succeeding generations are rewarded as we have been. With these thoughts in mind, we examined one area of concern—junk autos.

Auto graveyards are a vital segment of our economic industrial cycle and it is not our intention to legislate these enterprises out of business. Let us realize that they are one of the new social responsibilities of the 20th century.

Public demands for laws, regulations, or controls are rising. They are aimed at auto wreckers who are inconsiderate in the way they handle their business and private property owners who clutter their own property.

We in Rhode Island hope to set up certain regulatory controls which would bring the auto graveyard into the community cycle as well as the industrial cycle of which it is so vitally a part. I firmly believe that restrictions aimed at concealment and not removal of auto graveyards will bring about a more realistic solution to our problem.

Let us now examine our recently enacted Rhode Island law that is to take effect August 1, 1965.

This bill clarifies and extends the regulation and control of automobile junkyards and makes certain violations of its provisions a misdemeanor.

Automobile junkyards are defined in the bill as places "where one or more unserviceable, discarded, wornout, or junked automobiles, or bodies, engines, tires, parts, or accessories thereof, are gathered together."

This bill provides that no city or town may license a junkyard unless it is to be operated and maintained entirely within a building or unless it is (1) more than 600 feet from any State highway, and (2) more than 300 feet from any park, bathing beach, playground, etc., and (3) is screened or fenced from view by either natural objects or adequate fencing. Presently existing junkyards having valid licenses pursuant to sections 5-21-1 and 31-5-28 of the general laws on the date of passage, however, will only be subject to the fencing requirement.

Another notable provision of this bill is that operations to be maintained exclusively for the purpose of salvaging the value as scrap of the material collected, as opposed to reselling parts to be used for the purpose for which they were originally manufactured and is to be located in a built-up commercial or industrial area, or contiguous to a railroad siding, or on or contiguous to docking facilities do not fall under the regulation as applying to auto graveyards.

The bill also makes it a misdemeanor to operate or maintain an automobile junkyard unless it conforms to the above conditions.

Passage of this act will insure compliance with the recent order of the Bureau of Public Roads, that all eyesores along Federally financed highways must be screened from view in order to insure payment of the Federal funds to the States for highway construction.

With the advent of the new feeling about beautification throughout the country from President Johnson on down to the local town governments, we feel that there must be harmonious ground on which the auto wreckers and the community can meet to solve their problems. First, the auto wrecker must realize his role in society and his role in industry as two different areas. As a member of a given segment of society, he must correspond as other industries do. As a member of the industrial climate, he must realistically meet his problems of supply and demand.

Community members should recognize the social and industrial problem from their side of the scale. It is their unwanted and discarded autos that are doing the cluttering and the auto graveyard is a vital necessity.

There must be land use plans to set aside land to handle the increasing growth of junked cars.

Future action seems clearly spelled out. Through cooperation between communities, auto wreckers, governmental agencies, and conservationists, and a lot of hard effort, the planting of trees and shrubs to beautify and conceal, and appropriate research to the methods of disposal, can be a realistic solution worth every penny spent.

Auto wreckers should be encouraged to press through their own associations for the policing and maintaining of their own industry standards. It is always better when individuals can find a commensurate answer to their problems without government interference. We welcome the industry to joint efforts in maintaining their standards and finding solutions for problems created by the inconsiderate operator.

If the owners themselves individually or collectively can comply with the community standards, I would sincerely hope that the community would accept them in a like manner.

There is a wide area of harmony for all—dealer, community, and government alike—and I am sure with the proper perspective holding forth, we will see a new era in cooperation. It will not be done overnight, but it will be done.

ROBERT L. PERKINS, Jr. Automobile junkyards, while particularly obvious near many well-traveled highways, constitute only a tiny portion of our junk. The whole matter of the disposal of unwanted materials should be given recognition as a major problem worth a lot more attention, study, and implementation than it has had to date. Its wide range includes such aspects as pollution, the littering of streets and the destruction of wet lands by what is called, a "sanitary" land fill.

Economics hold the key to much of this problem. Enormous increases in the size of many auto dumps has been brought about by stockpiling due to the relatively recent price changes in the scrap industry. The economics and desirability of a required deposit on beverage containers needs reconsideration. Most any swimmer knows that this is not entirely a question of aesthetics.

KENNETH L. SCHELLIE. The following resolution and the two motions were brought before the body of the convention of the Garden Club of Indiana, Inc., on April 21, 1965 and passed unanimously:

Whereas automobile and machinery junkyards and billboards have become eyesores on our highways destroying the beauty of the countryside, and

Whereas the junkyards have become a health hazard as many are infested with rodents and both the junkyards and billboards are safety hazards because of junk being dumped too close to the highways and the billboards distracting the drivers, and

Whereas these problems have been of continued concern to the Garden Club of Indiana during the last two sessions of the legislature: Be it

Resolved, That this organization continue to work for legislation to correct these problems, also that we cooperate with other organizations to build bills to be introduced in the 1967 Session of the Indiana State Legislature.

That the Garden Club of Indiana in convention assembled go on record as approving President Johnson's Beautification Program and that members send letters or wires at once to President Johnson and John T. Conner, Secretary of Commerce, in support of this program, and that the Secretary of the Garden Club of Indiana send wires informing them of the action taken by this Convention.

That the Garden Club of Indiana in convention assembled go on record as approving the plans made at the White House Conference on Natural Beauty and that letters or wires be sent by our members at the time of the conference, May 24 and 25, also that the Secretary of the Garden Club of Indiana send a wire to Laurance Rockefeller, Chairman of the conference informing him of the action taken at this convention.

BENJAMIN SCHWARTZ.* Because we believe that only at top level can the public interest be protected, we urge that the President appoint a Cabinet Committee, including the Secretaries of Defense, Justice, Interior, Commerce, and Council of Economic Advisers (similar to Cabinet Committees appointed by Presidents in the past, to consider the coal, petroleum, and textile industry), to study the following aspects, among others, of secondary raw materials:

Antimonopoly.—The two important characteristics of the economics of the secondary raw materials industry, are the collection army at the base of the industry, and the function of the law of supply and demand, operating in a free market. The industry is composed essentially of independent and small business units who represent the last outpost of individual initiative within a highly captive industry. The survival of the small and independent operator, and his share of the market, are threatened by the increasing concentration of economic power in the scrap business.

Monopolistic trends in the industry, and the reciprocal and exclusive deals affecting the commodities, are raising the serious question whether there will be a place for the small or independent dealer in the future of the industry. In terms of a national emergency, the question is not whether the scrap will be around, but whether the human being and the organization for the collection and processing of the scrap, with its unique ability and experience acquired over many years will be there when it is needed.

*This is an extension of remarks made by Mr. Schwartz during the panel discussion.

It is our conviction that old autos will move freely (from the auto graveyard, to the scrap processor, to the melting furnace) when the free and open market is restored. Proposals that go beyond screening will tamper with the free market, and will tend to aggravate a greater concentration of monopoly in the industry.

Balanced metallics.—The balancing of all metallics within the steel industry, including domestic scrap and iron ore imports, should be studied with the aim of bringing about a larger use of the secondary annual crop. We refuse to be made casualties of technology and statistics, or casualties of monopoly. We deny the right of the steel industry unilaterally to determine upon programs without consulting us about our fate, or without consulting the public interest. We question the wisdom of scrap policy that has placed our industry on a standby basis to be turned on and off to suit the new economic theories of hot metal, while foreign ore sources are being developed in a lifeline that can be cut during a national emergency, or by the whims and caprices of newborn nationalism.

Just as the President saw fit recently to announce some guidelines to the steel industry, in the public interest (which indicated a relationship between production and pricing of steel, and a suggested 3-percent wage increase factor) we think that an appropriate study of all factors could produce some guidelines for consuming industries, of percentage increases in the use of the secondary annual crop of metallics, pulp, fibers, etc., thus preventing the waste of a natural resource, which will increase in tonnage annually as the population increases.

Bureau of Secondary Raw Materials.—It is urged that the Cabinet Committee give consideration to the establishment of a Bureau of Secondary Raw Materials within the Department of the Interior. At the 1962 White House Conference on Conservation, it was Secretary Udall who pointed out the danger of "fragmentation" in handling the conservation program, and stated that "the prime lesson of conservation today is that the piecemeal approach of the past to resource problems will not suffice in the 1960's."

There is a direct relationship between the secondary raw materials and the primary, most of which are within the structure of the Interior Department, with its adequate research facilities. We are entitled to a comprehensive approach to the industry, in lieu of "bits and pieces" scattered at many levels, stereotyped speeches and economic reports assuring us that "there will always be a scrap business," and other reassuring shibboleths.

J. LEWIS SCOTT. Federal, State and local governments can contribute to the solution of the auto junkyard problem by using car bodies, filled with cement, in many construction programs. Uses for such car bodies could be for soil erosion control and for the construction of streambank dikes, small dams, river and sea jetties, fishing islands, and highway and other fill.

Federal farm subsidies could be used in a 2-year cleanup program. Instead of funds used for grain subsidies, the same funds could be allotted to farmers on the basis of so many junked cars removed per year per farmer.

Transportation of junked cars to scrap centers and thence to steel mills could be promoted by the use of car-truck transporters. The Federal Government, with the help of car manufacturers, car truckers and the steel companies could perhaps work out a system of tax relief.

Automobile associations could promote surveys of junked cars and could start a drive for a national cleanup program, offering a new car as a prize for best results.

CHAPTER 15

THE NEW SUBURBIA

1:15 p.m., Tuesday, May 25

The Chairman, Mr. BEMISS. The subject of this panel is "The New Suburbia." We have used this term to include both the urban sprawl beyond the established metropolitan areas and the new cities being built out in the open countryside on sophisticated, advanced, and high-level design standards.

A lot of what our panel will say about "The New Suburbia" has been covered in earlier panels on the townscape, open spaces, parks, roads, and education.

This is not bad from our viewpoint, but it does illustrate that suburbia is a formless and ill-defined, or undefined thing which cannot be strictly and separately categorized. Suburbia is a little bit of everything.

The suburbia of the postwar years is maturing into the metropolitan areas of today. It is no longer a peaceful escape from city problems and concerns, but a deeply interdependent and fairly specialized part of the metropolitan complex.

Mr. Rouse was telling us that he estimates that one-half of the Washington-Baltimore area population in 1985 will be living in houses not yet built. This will give you some idea of the dynamics of suburbia and the urgency of attention to it.

In most of the United States, the metropolitan complex as part of the larger megalopolitan area is a new condition, creating dynamic problems and opportunities which must be dealt with positively if we are to direct quantitative growth for qualitative results.

Members of the Panel on The New Suburbia were FitzGerald Bemiss (Chairman), Beverly Briley, Neil Connor, Frank Gregg, Matthew Rockwell, James Rouse, Hideo Sasaki, and Robert E. Simon. Staff Associate was Philip Larson.

This new metropolitan condition is one for which the present political subdivisions were not designed. There is a conflict, a stalemate, between the actual and complete economic, natural resource, and social interdependence of the various components of the metropolitan area versus illusions and established mechanisms of sovereign independence of political subdivisions.

To put it another way, the conflict is often between short-run local interest and long-run metropolitan interests.

The stalemate must be resolved. A region, State, and Nation where three-quarters of our population will soon live in these urban areas cannot afford the stalemate in these very competitive and sensitive times. I don't believe that the stalemate is a result of stupidity. I do not believe it is the result of intransigence or inability. My own conviction is that it is the result of a lack of information, a lack of understanding of metropolitan geography and metropolitan economics.

The interdependence of people and of resources is not realized and, without this realization, the metropolitan area is without a policy and without a program, and therefore totally unable to move ahead. Nowhere is the cost of this stalemate more vivid than in the general failure to acquire and develop open spaces ahead of metropolitan expansion. These are the spaces that would give the metropolitan area a unity, a dignity, and a habitability and that now are being chopped up, marred, or destroyed.

This panel met Sunday afternoon and talked for four hours about these values and the problems that I have just tried to outline to you.

We have a series of recommendations on this subject and I will go very hastily through these.

The first point which Mr. Rouse made very forcefully and will develop for you is the need for a national policy directed toward the conservation of natural resources and amenities of the urban environment to achieve the values of a habitable, productive, and durable community.

The second point, on which Mr. Rockwell is a specialist, is the encouragement of metropolitan regional planning as a necessary basis for economic, human, and environmental development. Federal grants and loans should probably be withheld from localities until they establish that their program is part of the metropolitan comprehensive plan.

The third is that Federal agencies should facilitate the fullest and most effective application and understanding of existing programs

to encourage private entrepreneurial development of new communities meeting acceptable standards.

Next is the tremendous need for education on the nature and growth of the metropolitan area, so that we understand the physical structure of the environment and its economics.

Many decisions are being made on the basis of a misunderstanding, or no understanding at all, and ignore the fantastic dynamics which Barbara Ward was talking about this morning.

Each community and region should, like the Nation, have a policy on the protection and wise use and development of natural resources and amenities as the basis of shaping and developing the new suburbia.

Our basic feeling was that emphasis really should be put on local, regional initiative and understanding rather than just on a massive Federal program to straighten it all out.

MR. ROUSE. Over the next 20 years, as Mr. Bemiss has indicated, our country will grow by some 70 million people, and all of this growth will occur in our major metropolitan areas. The cities will account for our total growth. We will become, in our lifetime, essentially an urban nation. In this period of time, Baltimore will add a city bigger than San Diego, Denver, or Dallas to its population and Washington will add a city bigger than Baltimore.

Our cities now grow really by chance, by whim, by disorder; and the result is ugliness and conflict and drabness and monotony with neither solitude nor community to be found consistently in our suburbs.

Both nature and man are the losers in this conflict. This becomes a deadly serious matter because a strong case can be made for the assertion that the future of our civilization will depend upon the kinds of communities in which we grow our people.

Suburban sprawl is unnecessary and is advocated by no one. It is a product of national indifference or national neglect.

We can provide for the growth of our cities with communities that respect the land and are designed to provide a full, rich, and varied life for the people who live there.

The means for doing this are neither mysterious nor complex.

Mr. Simon is already doing this in Reston, and we are attempting to do it in Columbia.

Let me describe our plan for Columbia.

Columbia is planned to be a complete city, a whole city with all of the texture and fabric and functions of a city.

There will be as many people coming to work there in the morning as leaving to go to work elsewhere. There will be 30,000 dwelling units, 70 schools, 50 churches, colleges, libraries and hospitals, hamburger stands, auto sales rooms and retail lumber yards and all of the other things which make up a city. All this will be provided in an environment that will be designed for the growth of people.*

Columbia is midway between Baltimore and Washington on some 14,000 acres of land a little bigger than Manhattan Island, about half the size of the District of Columbia.

The land is rolling green hillsides, stream valleys, forests.

There is already the beginning of urbanization. Some 8,000 people live within Columbia's boundaries in 15 or 20 small developments.

The largest development has 300 homes, a fine small outlying community, which, left to its fate, will grow into the urban sprawl that reaches out from Washington and Baltimore.

U.S. Route 29, which goes through the middle of the land, is already pockmarked with commercial sprawl; and the entire road can expect this fate by traditional experience in urban growth.

The road coming to Columbia from Baltimore has the same commercial squalor.

The city of Columbia will be a system of 10 villages connected and separated by open spaces, connected also by its own bus system running on its own landscaped, separate right-of-way through the village centers and town centers. U.S. Route 29 will be fully decommercialized and will be a landscaped parkway through the center of town.

The villages are built out of a system of neighborhoods. All of the houses will be on neighborhood loops or cul-de-sacs which carry traffic only to the people's houses.

There is a park running through the center of each neighborhood with a system of walks connecting the houses to the elementary school and the recreational area. All children can walk to school without crossing major traffic thoroughfares. The high density housing is built along the busline.

*Mr. Rouse at this point showed a series of slides, illustrating the commercial sprawl and squalor of nearby suburban communities and highways and contrasting these with scenes of good environments here and abroad.

At the heart of the village center we have brought together functions that are scattered throughout the sprawling suburbs. The schools, stores, medical building for a population of 10,000 are brought together in the heart of the village.

The open space plan provides for 3,200 of 14,000 acres to be devoted to parks and open spaces, 26 miles of bridle paths, four lakes, three golf courses. Some of the open space will be left wild and natural; some will be brought to a more informal use for picnics, walking, bird watching, and camping; some of it will be more trim and tailored at the center of the village and neighborhood.

All of the town roads will be freeways that will be uninterrupted by either houses or stores or driveways so that traffic will flow freely, and all of these town roads will be landscaped without interference by people and their houses who will, in turn, be protected from the automobile with their own neighborhood streets.

The bus system is the Washington minibus on its own parkway.

The town center of Columbia is along Route 29 fronting on a lake. The floodplain will be developed into a front lawn for downtown.

A 50-acre stand of oak trees at the heart of the city will become a town center park, thus bringing the lakes and stream valleys into the heart of downtown itself.

Approaching from the east, there are two hills which will be developed with highrise apartments as a kind of gateway to downtown.

Beauty is free if you really plan to respect both the land and man. The best possible community for man will bring beauty naturally because this is the environment in which we want to live. It is easy to do. It is really a matter of our having a national determination that we will not allow our cities to grow in the kind of disorder and squalor that we call sprawl.

If we can make up our minds to do it; if we insist upon comprehensive planning and use firm national policy to insist upon it; if we at the local level create community development corporations that can execute a plan; if we recognize that when sewer and water and highways are extended through land, that land should be acquired by local government, by acquisition or condemnation, and the value increments transferred to acquire the stream valleys and forests and open spaces so that all the people benefit.

This kind of attitude towards land, this kind of determination that we won't be a nation of sprawl could transform the growth of our country very quickly.

Mr. CONNOR. Our panel members are mostly considering large-scale effects of the population explosion and ways to attack resulting problems. I should like to talk about the people who will live in the new suburbia and their houses. In his message, the President called attention to the architecture of building as an important part of the quest for beauty. How do we meet his challenge?

Our society today is an affluent one and our technical competence is so great that no longer will we be satisfied with "shelter" housing per se.

For a long time there was a desperate need for housing, and in large part the housing built to meet the need did not measure up to anyone's satisfaction—witness the popularity of the hit tune "Little Boxes." Surely, we want protection from the elements, but we also want beauty within as well as without. Beauty derives from good planning, and planning a home calls for the most expert of many skills. We're all groping for something better than we have but no single discipline can solve the problem. We need a concerted effort by many in many fields.

Awareness of the magnitude of this task has impressed not only college professors and many others who talk about it, but the very people, the builders, who have, perhaps more than others, been responsible for urban sprawl. For example, convinced that part of the problem is that we know too little about the people in the houses, last November the committee on environmental design of the National Association of Home Builders gathered together a group of distinguished thought leaders to consider the many factors that go to make up environment.

Leaders in the fields of sociology, economics, psychology, philosophy, architecture, psychiatry, political science, history, planning, home building, finance, religion, and the law for two days discussed ways to move forward in a massive effort to improve man's living environment. Not one of the participants felt that he was an expert in, or was even, despite his learning and experience, aware of the totality of the problems. The committee is now engaged in activity on the local level through the 330 NAHB local associations, and plans a wide variety of other activities, such as studies of planned communities and liaison with planners and architects engaged in specific environmental problems of housing.

On the money front, companies like Connecticut General think it good business to put their funds in a well-planned development like Mr. Rouse's "Columbia," and the same goes for Gulf Oil's interest

in Mr. Simon's "Reston." To have money interests feel that it is good business to provide better housing certainly indicates that the day of housing as shelter alone is gone.

The Federal Government has many programs which concern housing. As you know, public housing, through relaxation of its rules for design control, and by insisting on the hiring of competent and imaginative architects, has faced up to the problem. The Federal Housing Administration, although at present it insures less than 20 percent of the new housing in this country, has a vast control over materials and methods used in residential building. No manufacturer can easily sell a material or system to any builder without having his product acceptable in FHA-insured housing. The FHA has strengthened its technical staff to cope with its review responsibility and its standard-setting function. One beneficial byproduct is unification of many decisions of code authorities. Incidentally, I think we all ought to look with hope toward the President's Temporary National Commission on Codes, Zoning, Taxation, and Development Standards, which he recommended in his message on "Problems and Future of the Central City and the Suburbs."

One of the great hopes of the FHA is promotion of planned unit developments with homes associations. FHA's Land Planning Bulletin No. 6 dealing with the subject has been very well received and already has had considerable influence in certain areas of the country.

On the design front the American Institute of Architects, in its statement on the 1965 housing act, reemphasized its concern for good design in housing and called on the government to insure that professional personnel hold responsible positions. The AIA has assisted us in this extremely difficult task of obtaining qualified architects.

Progress is being made under various other government programs such as experimental housing, low cost demonstrations and technical studies. Under the latter are such problems as overhead wiring, trash disposal, and noise control. I note these government activities which can so greatly affect the family and improve its home environment, so that maximum participation will be forthcoming from the many sources of help which now exist.

Mr. SASAKI. Whether we like it or not—whether we do something or not—urbanization will almost double itself during the next three to four decades. If we are satisfied with what we have made of our urban environment to date, then our future is bright indeed, for we can look forward toward having a "good thing—twice as big!"

From the fact that we are holding this conference, and from the many critical statements made over the past two days, it is clear that we are not satisfied with many aspects of our urbanized environment. The various speakers of the other panels have made most excellent suggestions of ways of preserving, using, and rectifying our environment. From their many ideas, we can see a bright prospect—if we can guide or direct this enormous building and rebuilding activity which we have going on today, and which will accelerate even more with the pressures of population and economic growth.

For the sake of brevity, I should like to summarize my remarks to make the following very general points:

The present suburban sprawl is the result of our programs and policies to date. Therefore, we can expect our future suburbs to be pretty much like what they are today unless the effects of the economic forces and public policies determining the forms of these suburbs are modified.

Much of this growth will take place at the fringe of the existing metropolitan centers as simple expansion. The form, the character, the quality of this growth will reflect all of the multitudinous forces acting upon it—the caprice and demands of the market, the controls and permissibility of the local zoning and subdivision controls, the legal and financial requirements of leading institutions, local bodies, county, State, and Federal programs, and, to only a very slight degree, the taste of architects and designers.

New effectiveness, perhaps along the lines of the Muskie bill, must be given to planning and carrying out policies on a regional basis extending far beyond the local municipal bounds. From a community point of view, a well-designed plan which preserves the natural beauty of the streams, valleys, the wooded slopes and other such scenic areas needn't be any more costly or extravagant than our current way of doing things.

William H. Whyte in his booklet *Securing Open Space for Urban America* makes a convincing case for the use of scenic or conservation easements as a technique whereby the community may acquire limited development rights from the owner for the public good. Coupled with his excellent suggestions should be, however, a corollary or complementary provision of permitting increased densities in other areas. Large lot zoning, used by many communities, of itself is more often than not destructive of the very value it seeks to preserve.

Increased density permitted in selected areas will do several things. It will:

1. Balance out the economic factors.
2. Meet the real need for already too short land supply for development.
3. Help create compact, varied, and more viable communities.
4. Preserve large areas of open land.

Because land is held in small parcels with property lines which do not reflect or respect physiographic or landscape wholes, logical development of a community will continue to be difficult. Planned unit development techniques are attempts to encourage larger area planning by one or more owners jointly. As beneficial as these efforts may be, they are still piecemeal and not large enough.

We shall need new entrepreneurs and development corporations which will have resources enough to stay in the development process for a long period. And, as any other large corporation, there should be a strong research section attached to the organization to determine market and human needs and to develop better housing more efficiently, economically and more beautifully.

Despite the many deficiencies of the British new towns, the venture has been unparalleled in altruism and boldness as a physical and social experiment. We need equal experimentation in building new communities in the United States. With the talents and resources available, we should look with anticipation to the exciting prospects.

Lewis Mumford is quite correct when he states that autos are the real architects of our cities and countryside. If we want to build compact and varied communities, we shall need to encourage a balanced transportation system and minimize the divisive effect of sprawling highways and parking lots. Because it is not economical for developers to build parking structures until the land is somewhere near \$6 per square foot, some method of mandatory regulation or of public subsidy becomes necessary. Perhaps it might be well for the Federal Government to consider not removing the excise tax on autos, but diverting it so that it becomes a tax on auto users to pay for public garages.

The open land, freed because of concentrated development, should be used not only to preserve the various natural amenities, but also to give continuity and structure to the design of the community. As Mr. Philip Lewis mentioned this morning, landscape features and

elements are often found in linear and other ecological patterns which may, when coordinated with the density patterns of circulation systems, give scale and coherence to the city. Design structure will be sequential as contrasted to the traditional notion of form or shape of the over-all city.

Mr. McHarg (who was also on this morning's panel) once said that there are three things which give unity and coherence to our urban environment—snow, nightfall, and the landscape. Since we cannot control snowfall and since we cannot live by night alone, my bit of parochial advice would be when in doubt—plant!

Open areas should exist at various levels—from neighborhood parks and greenways, which provide relief and amenities to congested urban areas, to large regional parks and State parks. The backup areas of the Laurentians, Adirondacks, and the Appalachian Highlands, though not spectacular as compared to the western mountains, are essential to the sanity and well-being of the urbanized eastern seaboard and are worthy of preservation as are our national parks.

The nature and the new dimensions of the problems of our cities will need to be understood. There is a new urgency to both the physical and social problems. The fried egg pattern has become scrambled. For the good health of both the center city and the suburbs, racial restrictions must give way. Only by the humane restructuring of our physical and social environment will we develop a viable society.

Mr. ROCKWELL. My comments are directed to two points: (1) that the new suburbia (which I choose to call the city-region) can be the guided product of comprehensive metropolitan planning, and (2) that the most practical and the most dramatic shaper of the planning process can be the predominating natural resources of any particular area.

With the assistance of HHFA programs, metropolitan planning has come of age. True it has its shortcomings—in some cases it is too dominated by a transportation plan—and in other cases the virtual smothering of an area by its particular web of political agencies (Chicago's region has over 1,000) gives much to hope for.

But the millenium should arrive with the passage of Senator Muskie's bill to require almost all new Federal assistance projects to show some degree of correlation to a comprehensive metropolitan plan.

Despite a popular disparagement of the suburbanite we should never forget that he has some of the same human desires of his city cousin—and that both types will respond to sensible and humane planning programs.

Is the metropolitan plan a sterile map of near-existing conditions all neatly tabulated? It must not become so! I am convinced that the natural resources of a metropolitan area are its foundational determinants, and that the basic proposals for growth of the area stem from these determinants. These resources can include, at the least, water (both above and below ground), air, hills (if any), lake fronts, etc. In the midwest or prairie region of our country, the natural landscape is not as majestic or dramatic as that which is found in other parts of the country. This does not mean, however, that the pattern is entirely lacking in beauty and if future development is properly designed, whether within the fringe area or in satellite cities, the physical environment of the metropolitan area can yield multipurpose benefits.

There are at least two basic approaches to a program relating to natural beauty which are applicable to the new city-region. The first process is to plan, design, and redesign not only future growth, but also all growth so that it is compatible with the physical environment, thereby restoring and preserving the natural beauty of the physical setting. The second course of action is to undertake projects to restore the scenic and aesthetic appeal that one time existed, but which has been marred or destroyed by the hand of man. Examples of such marring are: abandoned quarries, clay holes, sand and gravel pits, waste laden rivers which have been channeled to the point where they have the appearance of sordid ditches, commercial strips, vast macadam parking lots, endless subdivisions.

Depending upon the decision makers, whom we are advising, we may suggest action in the four following areas of beauty:

1. Neighborhood beauty—that kind we find in street trees, shopping center plantings, front yard landscaping, and so forth, which is so characteristic of our good suburbs.

2. Community beauty—where the relationship of the manmade landscape to the God-given landscape can be readily seen. The relationship of streets to contours, dwellings to trees, expressways to vistas, and so forth.

3. The beauty of the purity of nature; clean water, clean air, clean fields, and forests.

4. The peculiar beauty of parks and open spaces where the experience of nature can be enjoyed and we can sense that suburbia is not endless. Through this process we can achieve significant metropolitan forms.

The last two areas lend themselves most easily to treatment at the metropolitan level. Success locally with these two areas, in the planning for clean water and clean air under special projects in cooperation with several public agencies, leads us to recommend further national exploration in this area. Also, in recognition of programs with the Federal open space program, success in assisting in county open space acquisition, we recommend the extension of these policies. Little sung, this latter program may be the single most important harbinger of the new suburbia.

The practice of applying natural resources management to preserving, conserving and creating natural beauty in suburbia has been made in Illinois through small beginnings. For example, our Commission was a participant in transforming approximately 400 acres of derelict land (an abandoned and unkempt gravel pit which had accumulated debris and junk since the operation terminated) into a recreational area containing a 75-acre lake, forested areas, camping facilities, picnicking areas, and slopes for winter sports. The lake is designed as a ground-water lake, and sand and gravel are being excavated to obtain a depression that will be below the level of the water table. The revenue derived from the sale of pit run or unsorted gravel covers the entire cost of developing the lake. The hills and slopes for winter sports will be built up by above-ground sanitary landfill which will not, due to careful planning, detract from the natural beauty. Imagination and ingenuity were used to formulate a plan to restore lost natural beauty to a tract of derelict land at a relatively modest cost and, at the same time, provide a sorely needed, water oriented recreation area and winter sports center and accommodate a large volume of solid wastes.

But perhaps the greatest contribution to natural beauty may come through a better understanding of the water resources. Through education and local planning assistance, many suburban valley floors will provide natural beauty. Since much of the local area depends upon ground water, we are mapping not only flood plains, but also prime natural recharge areas (where water enters into the ground and moves to the ground water reservoir), and the distribution of aquifers or water bearing strata, and then recommending open space uses in these locations to interrupt the sprawl and to provide form.

Many of our smaller streams and some of our larger ones are dry in summer—most of them are also polluted. Our plans include cleaning them to a recreation use level and storing spring flood waters to enhance their natural beauty during the time when most metropolitanites can appreciate them. The storage of flood waters in new impoundments created from gravel pits, for example, can further augment natural beauty.

Natural resources, as a foundation for the planning of metropolitan areas, will not only preserve natural beauty but enhance it and, in some cases, create it. The new suburbia in any metropolitan area can have more natural beauty than the agriculture it is replacing.

Mr. BRILEY. Being the mayor of a metropolitan area of 533 square miles, which contains both urban, suburban and rural lands, we are very much aware of the problems in the suburban area of attempting to maintain natural beauty.

We have participated heavily in the open space program, buying lands reasonably available for park purposes, having acquired about 700 acres during the past two years in some several tracts of land, and are creating recreational facilities and preserving the natural beauty of the terrain.

We are attempting, through subdivision regulations, to develop a land use program in the suburban area as it builds up, maintaining the natural beauty of the terrain.

We need to take another look at the partnership relations between the Federal, State and local governments in attempting to further the efforts that we are making in our own local community.

By our urban renewal projects we are re-creating some degree of natural beauty in the downtown urban renewal programs.

We have a capability and are maintaining to some degree in the suburban areas a consideration for natural beauty and for open spaces.

We have the Metropolitan Beautification Commission, consisting of some of our leading citizens and a complementary staff, that both does a housecleaning job from the urban use of land as well as bringing to our attention the various things that can be done to preserve the natural beauty of our terrain, having the responsibility of preserving the tree-lined streets and thoroughfares.

We conduct programs through the Commission many times during the year, such as the Clean-Up Program in the spring, utilizing all of the civic clubs, garden clubs, Boy Scout units and so forth in making

them more aware of their responsibility by asking them to help us clean up and being thoughtful of the effort to clean up, to maintain a cleaner and more beautiful situation during the entire year. These programs have brought us numerous awards nationally, including the Trigg Trophy.

Through the alert effort of the staff of an excellent Planning and Zoning Commission we are attempting to preserve a logical pattern of land use that will preserve the economic integrity of the community, and at the same time restrain unsightly development of the vast acreages that are available for future preservation and development.

An examination of the Federal and State relationships with the local government leaves much to be desired in activity by all three levels of government.

Our new form of government has energized our citizens so that they are taking a substantial interest in the affairs of local government, which is witnessed by many actions and activities of the past three or four years that can be related.

On the other hand, through the reluctance of the State legislature, we have had a most difficult time in resisting pressure lobbies who have kept us from having the kind of authority that is often needed to restrain unsightly developments that impair the natural beauty of our area.

Only this year, through the efforts of the Tennessee County Services Association and the Tennessee Municipal League, together with the help of garden clubs and civic groups, were we able to get legislation that restricts and limits the junkyards for wrecked and worn out automobiles. An enforcement program under this Act is under way to restrain future buildup of these situations.

Much attention must be given to some disposition of the existing areas to bring about a more attractive area where these bad situations already exist. It no doubt will require some Federal help, as well as State help, in finding a disposition for these unsightly yards, inasmuch as the new processes of steel do not cause these inventories of unsightly materials to move out of the yards that presently exist.

In another way, the suburban areas that are beyond the jurisdiction of the local government are creating a new type of condition that does not contribute to natural beauty, and also will, in my judgment, become the slums of tomorrow.

Where a metropolitan area, through its governmental jurisdiction, does restrain development to the extent of keeping it orderly and sightly and utilizing the best techniques and land use, the adjacent

territories not under the governmental jurisdiction of the metropolitan area have refrained from contributing to a program of this kind by not requiring subdivision regulations and by permitting any kind of development along a roadside without subdivision regulations, to become the breeding ground of the new slums.

We have a national committee, of which I am co-chairman, that is making an effort to curtail some of the activities of the farm programs and the HHFA in furnishing loans and grants for the building of a water system so that land owners in these areas can produce a lot without any community facilities for a price one-fourth to one-tenth the cost of a lot inside the metropolitan areas of the same kinds of land, but whose cost is affected by community facilities that are required by subdivision regulations for standard procedure in housing.

The absence of housing and building codes of this nature is such that the developers of this substandard housing can advertise their lots and market them to people who will start their own residences and be 20 years in the building thereof along the roadside and through empty fields that do not have any road patterns except where a bulldozer may have cut a trail.

The utility districts that are established through State laws and the Federal grants through various programs under the guise of furnishing water to farm areas—which should be done—permit the same areas to be developed in this type of substandard housing.

There are three counties adjacent to Davidson County where the population density has been building up as a result of these kinds of programs to the extent that we have made repeated protests to the Federal agencies involved and have approached many of our Congressmen and Senators in an effort to require that some type of workable program be developed in any area wherein these grants and/or loans are given, so as to require that standard type of housing be initiated and that nothing be done in behalf of substandard housing cutting into the natural beauty of the surrounding lands.

Considerable gains could be made if the various Federal agencies would enter this as a requirement prior to any loan or grants being made.

The use of the interstate highways as they are completed is accelerating this abuse of our land patterns and our natural beauty. It certainly is necessary that every effort be made to correct this before it accelerates under the new highway programs.

Mr. SIMON. If the new suburbia is to help preserve natural beauty, the most important single tool, in my opinion, would be density zoning. I was interested to hear Mr. Connor tell us that there is a Presidential commission looking at zoning problems right now.

I hope they will investigate the benefits of density zoning. This is basically the zoning that allows a freedom to the developer to cluster houses on less land and thereby create open space in the process.

I don't believe that open space, per se, has any great significance. I think it would be a good idea for us perhaps to stop talking about greenbelts and green wedges because these don't relate to anything except color on a piece of paper. Let us talk instead about parks, playgrounds, tennis courts, lakes, golf courses, walkways, bridle paths—the kind of things that Mr. Rouse is including in his excellent plan for the new city of Columbia, and we are including in our plan for Reston.

Open space can be a delusion. I am thinking of one particular massive tract that looks marvelous on the master plan but it turns out to be an impenetrable forest, never developed in any way.

I believe the best open spaces are those closest to the people, which they can use with great frequency. In other words, the small parks that Jane Jacobs talked about are more important than the enormous vacation resorts which are also Federally helped.

It is the day-to-day use, the participating in the use of open space that is most important. We have a design for a nature center in Reston which I will use as an illustration.

A study was made by a foundation which indicated that the land we selected was marvelous and which recommended a program for the exposure of 5th, 6th, and 7th grade children to a tour through this nature area and to some lectures in a classroom.

We feel that a much more significant program, and one which we intend to implement, is to start with nursery school children and see who amongst them is interested in dealing with nature and planting at an early age. Later on, there would be training in cross fertilization and planting trees and eventually grafting. We hope as the years go on, there will be a sizable group of people living in Reston who are actually working in the nature center and perhaps will be out as volunteers working with the groundkeepers and maintenance men.

I would hope that the new suburbia would not only have natural beauty, but would have manmade beauty. I would hope it would be of the best in contemporary architecture. I don't believe it makes

a great deal of sense to hang onto traditional architecture as something safe and sound, because if we were to project too far back in history we would all be living in caves.

In addition to good architecture, there should be good sculpture, painting, music, and drama, not just to be observed, but to be participated in to the maximum extent of interest held by the people of the community.

Now, racing the clock, I have two specific suggestions. One deals with the private sector and the other with both the private and public sectors.

The first is that there seems to be an arbitrary difference between private and public land ownership. With the increase in the size of private developments, the inhabitants of these developments should not be deprived of the benefits of public funds for planning for recreation and for amenities which are available to communities which are not privately owned.

It seems to me that the way to solve this problem would be to redefine eligible recipients of such money to include the communities that have a program that is acceptable to a reviewing board.

Now, as to my suggestion to help both private and public sectors, the complexity of dealing with the Federal establishment, of understanding the aids that are available, is a task that is almost too much for larger communities, let alone the smaller communities and the private developers. So I would hope to see a task force set up for two purposes—one, to disseminate information on the public funds that are available and the ways of obtaining them, and the other to act as expeditors to help those poor souls who know what they want, but haven't got the energy or the knowledge or the stick-to-it-ness to get it done.

Mr. GREGG. We now have two important Federal programs designed to help acquire and develop open space for outdoor recreation and other purposes.

We have spent quite a bit of time in the last couple of months trying to investigate the relationship between these two programs and to find a way of defining them. I suggest this is a waste of time. Both programs are important and both of them arise out of different planning context.

The Housing Act of 1961 gives the Administrator of the Housing and Home Finance Agency authority to provide grants-in-aid to

States and their political subdivisions to acquire urban open space for conservation, recreation, and historic preservation purposes.

Grants of 20 percent (or 30 percent where the applicant has open space responsibilities for a metropolitan area or urban region) may be made direct to local governments for acquisition projects. Projects must be related to comprehensive planning for the area in which the land is located.

Administration of the program has been delegated to the Urban Renewal Administration.

Appropriations for fiscal year 1965 were \$20 million. The request for 1966 is \$60 million.

The Land and Water Conservation Fund Act of 1965 gives the Secretary of the Interior authority to provide grants-in-aid to States, and to local governments through the States, to acquire (and develop) land and water areas for outdoor recreation purposes.

Grants of 50 percent may be made for acquisition or development projects consistent with a statewide outdoor recreation plan. All applications are made by the States. The States may transfer Federal matching moneys to local governments for approved projects consistent with the statewide plans.

Administration of the program has been delegated to the Bureau of Outdoor Recreation.

By 1968, and in subsequent years, combined appropriation requests will probably exceed \$200 million annually.

Both programs should be available for use in the new suburbia.

The amounts authorized or foreseeable under both programs—even if applied exclusively to land acquisition in urban and urbanizing areas—would fall far short of needs.

But out of concern for a number of things—Congressional criticism of duplication, confusion among applicants, and a clear threat to the vitality of the HHFA program because of its lower matching contribution—a great deal of effort has gone into attempting to tidy up relationships between the two programs. Specifically, serious consideration has been given to effectively excluding the land and water program from standard metropolitan statistical areas—in which the new suburbia lies.

The two programs do overlap. The HHFA program is clearly intended to operate in urban and urbanizing regions. And the BOR program—the legislative history is clear—is intended to help provide accessible outdoor recreation resources for urban dwellers, as well as to protect scenic and recreational resources in the outlands.

But there are excellent reasons which may have prompted Congress not to attempt a hard-and-fast distinction.

1. The need for Federal assistance for land acquisition is greatest—and costs are highest—in urban and urbanizing areas.

To deny to urban governments and urban residents the opportunity to share in the generously financed Land and Water Conservation Fund on grounds of administrative tidiness can hardly be defended.

2. The two programs are complementary. They overlap, but they are not identical—and both are necessary. (There is prohibition in law against doubling up on Federal aid programs.)

The Federal Government requires planning as a prior condition to acquisition grants under both programs. It ought to be willing to let the money go where planning shows the need to be.

The statewide outdoor recreation plan required as a condition for land and water grants, must take account of outdoor recreation resources and needs throughout the State, including those of urban and suburban areas. A State plan may show an overwhelming unmet recreation land need in urban regions. The State may meet some needs directly. But local governments will share responsibility. The State should be positively encouraged to channel Land and Water Conservation Fund money to help local governments meet their responsibilities.

HHFA open space grants are related to comprehensive local planning programs for growth and development, including land use, transportation, education, public facilities, and other elements.

Legislative history of the HHFA program emphasizes need for land acquisition for broad conservation purposes as well as recreational and historic purposes—and lays great stress on open space preservation by local governments as a factor in influencing the shape and directions of development.

To emphasize: the kinds and locations of lands identified for acquisition or protection under the two planning programs will overlap to a degree but not enough to make it sensible to establish arbitrary and artificial boundaries between the programs.

Functional planning for outdoor recreation on a statewide and interstate basis is essential to provide a balanced range of activities in diverse environments. The statewide planning programs will identify recreation resources and needs within urban regions which may not—for good reason—be identified in urban regional comprehensive planning.

Most urban open space marked for acquisition or protection under comprehensive planning will have outdoor recreation value. But some areas—aquifers, wetlands, ridgelines, small natural areas of scientific interest, for example—may be of limited utility for active recreation.

No amount or quality of urban regional planning will lead to a sensible interrelated system of open space and outdoor recreation areas until regional plans are correlated with each other and with those of the State, and ultimately into an interstate and nationwide program.

3. Both programs are fluid. The Land and Water Conservation Fund program is not yet in operation. Legislation is pending to broaden HHFA's authorization to include grants for acquiring and clearing developed land, for developing acquired lands, and for landscaping and beautification.

Any arbitrary distinction in advance of experience—either functional or geographic—is likely to defeat the intent of the Congress in authorizing the two programs.

The sensible approach is to get the two programs on the same financial footing; to let the relationship between the two programs evolve out of experience. During this shakedown period, HHFA and BOR regional offices should exchange information promptly on project applications for acquisition grants, and should encourage close coordination of comprehensive planning and outdoor recreation planning, State and local.

The HHFA program should be strengthened.

1. The Federal contribution should be raised to 50 percent—the level Congress has set for Land and Water Fund grants. Identical cost sharing is essential if the two programs are to effectively complement each other.

2. More—much more—should be appropriated. With 50 percent Federal money, applications will rise. Appropriations should keep pace. Time is critical in terms of lost opportunities and rising prices. We defeat the primary purpose of the program, and waste money, by conservative funding.

Both programs ought to stimulate new approaches.

The HHFA program has been used largely for classic fee-simple acquisition of park lands.

Not much has been done either with less-than-fee ways of preserving open space values, or with preserving open space where recreation is not a primary value.

The low Federal cost-share makes experimentation risky—and administrators are not known as innovators, anyway.

A portion of annual appropriations for both programs ought to be set aside for demonstration grants to try new techniques for solving old problems, and for broadening the effective scope of the programs beyond park land acquisition.

The cost share for demonstration grants (as proposed for urban beautification projects by the Housing Act of 1965) might go to 100 percent Federal.

The States should have a hand in the planning for the new suburbia.

1. Uses and values of open space are not affected by city, county, or regional planning boundaries.

2. Effective statewide planning (both comprehensive and functional) is essential to developing an interregional, statewide, interstate, and national system of open space and outdoor recreation resources.

3. The Land and Water Fund requirement for statewide outdoor recreation plans is proving a stimulus to statewide planning generally and much State outdoor recreation planning is being done as an element of 701 comprehensive planning programs.

This stimulus to State planning is especially important to the new suburbia, where jurisdictions are typically fragmented.

Federal, State, and local governments should exploit the Land and Water Fund planning requirement to strengthen State planning programs generally. In open space-recreation planning and protection programs, the Federal Government should require States and local governments to show evidence of coordination.

As State planning performance improves, and as States become more responsive to urban needs, we may be able to work out a Federal-to-State-to-local relationship in planning and acquisition without disadvantage to urban populations.

Questions and Discussion

CARL FEISS. Mr. Rouse said something that disturbed me a little. I hate to disagree with you, but you mentioned the fact that beauty comes free.

Now, this may be true of natural beauty, but I don't think this is the case of unnatural beauty and I have engaged competent urban

designers and architects as has Mr. Simon and others on the platform. What I am talking about is this. We have had meetings on roadside blight and water pollution and we are, I think, this afternoon, addressing ourselves to land pollution. The roadside blight is not natural and land pollution in suburbia is not natural. They must be looked at, it seems to me, by this conference in very much the same way as pollution.

You and Mr. Simon are addressing yourselves to showing us good examples of good design. It seems to me that the basic issue we are facing is how your examples can be spread across the country; how they can be used as illustrations of what to do in order to prevent what not to do, which as all of us know is the common practice at the present moment.

I urge that the consideration that we give at this conference and the recommendations to the President be couched in such a way that it is quite clear that we are against land pollution in suburbia in the same way as we are against land pollution in roadside blight and water pollution across the country.

EDWARD STONE. During this conference, it has been brought out that this Nation has committed probably the most monumental irresponsibility in history by building a country without plans.

Now, to get plans we have to have them made. Obviously, it is a responsibility of the Federal Government, the State, and the municipality, and, of course, the individual.

However, it seems to me that the advent of 80 million automobiles in this country is really the root of all of our difficulties.

Why? In a country that eulogizes private industry, the steel, the rubber, the oil, the automobile industry, why do they not have more responsibility to the people of this Nation to undertake plans, pilot plans for the countryside, for the village, for the town, for the city?

No word has been said about their monumental obligation to all of us.

WILLIAM SHAW. I would like to address my remarks to Mr. Sasaki.

This morning Barbara Ward on the Education Panel made the comment that the cities are growing at the rate of 8 percent a year as against the suburban area of 4 percent and the country at 2 percent. So there is a tremendous explosion taking place in city areas.

I know this is a suburban panel but I would like to address my remarks to the fact that Reston and Columbia are doing a fine job

in taking care of the suburbs and the new suburbia ideas, but I think one thing that could be recommended from this conference is that we, as a Nation, experiment in building a new city such as Washington was built. Let us sit down and really put some of the sophistication, some of the new knowledge that we have, into working on a new city some place in the United States or several places in the United States. Perhaps then we will take a little bit of the load off the suburban sprawl, we will take a little bit of the load out of the crush that is coming to the cities, and at the same time perhaps come up with a model of a true and magnificent 20th century city.

Mr. SASAKI. It would be wonderful.

A DELEGATE. I would like to comment on the automobile situation which the gentleman referred to.

Delaware has and has had a law for something like 15 to 20 years requiring all junk dealers to have a fence in front of their place to hide the ugliness of these junkyards. In most cases, it is a very attractive fence.

Anybody interested may write to Delaware including those from such States as California where they are always complaining about the things they have and the problems they have. Let them write to the small State for advice.

LAURENCE AURBACH. We in local government have a problem in educating lending institutions. In Santa Clara County we have ordinances for planned residential communities which provide for mixed uses and cluster developments.

We have had a great deal of difficulty in selling this concept in the community because of the lethargy, apathy, and inertia of local lending institutions.

I would like to suggest this panel ask the appropriate agencies of the Federal Government to take the initiative in educating lending institutions to help local government sell the concept of planned development.

A DELEGATE. I would like to comment on Mr. Sasaki's recommendation of when in doubt, plant, and make an additional observation to the discussions of yesterday which considered setting a goal of some 100 million or 10 million big trees for our cities.

We do now have technology in the form of new power, hydraulic power for large tree removal. Technically, large trees can be rapidly brought into our older suburbs en masse and using plant stock

from 6 to 10 inches in diameter and up to 50 feet tall from second-growth native forests.

In other words, technologically and relatively cheaply, we can now bring the countryside to the old suburbs in a new way and many of the trees in the newly developing suburbs can be preserved.

Isn't this really part of what we should consider in a new movement in urban beautification?

A DELEGATE. I would like to compliment Mr. Rockwell on his suggestion that we develop with the natural resources of the community, and the further suggestion that there is a great deal of technical information available relating to soils, watersheds, the amount of runoff that might be expected under different situations. In all types of development we should give this natural resource base first consideration and not make the mistake of drawing some lines around a given area and saying "This is what we are going to do." In this case we may end up with some very disastrous and costly results. This information is available.

The HHFA funding program recognizes this important factor and I would suggest we always look first to the natural resource, then go from it.

GLENN THOMPSON. I should like to enter the same objection that I entered at the original session of this conference. It is that we are too presumptuous in the idea just offered that we plan a brand new city. I think that is as presumptuous as if we planned a factory when we did not know what we would build in that factory.

I think we do not know what the city of the future wants to be and until we do know that we should be very careful about over-all plans that would be superimposed upon cities.

I realize that this is a late hour to again repeat some obstructionist ideas. I urge upon us that we plan for the known needs of a city which are economically or politically justifiable. We will know what the city wants rather than prescribe a character for it which the city itself may not want.

Statements Submitted for the Record

RICHARD J. CANAVAN. Using natural beauty as part of the residential setting in the new suburbia is both an art and a science. But

taking advantage of the benefits of nature does not come automatically. It requires thoughtful planning.

Ours is a heterogeneous society in virtually every aspect. Many families enjoy the convenience of in-town living with nearby centers of employment, commerce, and recreation. Among this group, some families seek housing in the detached home with a small city-size lot, some in multifamily development, and others prefer townhouses.

The picture is not entirely different in the frontiers of the city. Of course, a great percentage of housing that exists in suburban areas today is a product of the housing-shortage years immediately following World War II. Then, the emphasis was on shelter and the need was urgent.

More recently, industry has begun to produce housing which incorporates fulfilling environments in addition to meeting housing needs. In large measure, this is being done through a sophisticated approach to the colonial concept of housing on the village green, including all housing types. This concept is called a planned-unit development.

Essentially, a planned-unit development provides more intensive housing land use and permits incorporation of sizable, open, parklike areas and recreation facilities which are commonly owned and maintained through a homes association in which membership is automatic.

This land development concept provides the flexibility and variations of housing types which present market demand requires. It would not be uncommon in a planned unit to find cluster development of detached homes, townhouses, and, to a minor degree, multi-storied or garden-type apartment developments.

The concept of townhouses-on-the-green, in practice, incorporates many of the benefits of apartment living—a minimum of lawn care and exterior maintenance—with the amenities and pleasure of home ownership. It provides individual family privacy in small private yards, yet has readily available the relaxing and inviting spaciousness of open green areas of natural beauty.

Common ownership of recreation facilities and open areas requires a responsible entity to assure continued maintenance and care. This function is performed by a homes association. Membership in the association is automatic. Each property owner has a voice in the management of the association. Similarly, each has a responsibility to support its functions financially. It is not costly. For a

nominal family payment, perhaps as low as \$3 a month, a homeowner can enjoy the green open areas and recreation facilities. The administration of protective covenants including architectural controls and less frequently exterior maintenance of the individual home are also homes association functions for assurance of long-term conservation of the beauty of a neighborhood. The Homes Association Handbook, a recent publication of the Urban Land Institute of Washington, D.C., contains comprehensive information on all phases of homes associations.

The recreation open areas and facilities owned and operated by a homes association are intended to supplement, not duplicate, existing and anticipated public recreation and conservation programs. Moreover, all or a part, of the recreation area within a planned-unit development conceivably could come under public ownership as a part of the over-all open space system of a local governmental unit.

Late in 1963 FHA published a technical bulletin entitled "Planned-Unit Development With the Home Association." It illustrates outstanding examples of housing developments which incorporate the planned-unit development. This technique is applicable for residential development of any size and some of the development plans for the new community incorporate the features of planned-unit technique.

The judgment concerning proper relationship between residential building mass and land area is obviously of prime importance, particularly when considering a development which incorporates several housing types. FHA has produced a new system of measurement called "land-use intensity." It establishes, from a single base, a wide variety of relationships between constructed facilities, amenities, and land area. It considers such things as floor area to land area, open space to floor area, recreation space to floor area, and car space to the number of living units. Technical details are published in FHA Land Planning Bulletin No. 7, Land-Use Intensity and FHA Minimum Property Standards for Multifamily Housing.

The planned-unit development is by no means an end to our progress in residential land use. It is, however, an advanced concept which is only beginning to make its impact on what will be the new suburbia. Local planning commissions and other governmental bodies are now making provisions for the planned-unit development concept in "General Development Plans" and implementing codes and ordinances. Guidance on these matters is available through local insuring offices of the Federal Housing Administration, Tech-

nical Bulletins 40, 42, 50, and 52 of the Urban Land Institute of Washington, D.C., American Society of Planning Officials of Chicago, and American Conservation Associations publication—*Cluster Development* by William H. Whyte.

Through artful application of this technique, developers can preserve satisfying, fulfilling environments from our abundance of natural beauty by leaving untouched the vistas and atmosphere which nature has provided.

MICHAEL DOWER. Cities and suburbs are not two things: they are part of one entity. The new suburbs are the cities of the future and must be given not only the range of facilities but also the scale and the beauty which we associate with cities: the existing cities must be restructured and enhanced to acquire the grace and spaciousness which we associate with suburbs.

The key to each of these, which has been running through this discussion, is the idea put up by Mr. Gutheim in the Townscape panel—that the fabric of the city (or the suburb) is made of a warp of man-made things and a woof of natural ones. The woof must be strong, on two scales—the large scale of rivers, flood plains, streamsides, ridges, bays; and the small scale of trees and other native plants.

To keep the woof on these two scales is not just a matter of beauty, but a matter of hard concern for function and for land values—that physiographic determinism which David Wallace and Ian McHarg have shown up so well in their recent plan for the Green Spring and Worthington Valley. The principles of beauty-from-function which Mr. Rouse has shown for Columbia must be jacked up to the metropolitan scale to produce a framework for beauty both for the city and for the new suburbia which is the future city.

P. BRUCE DOWLING. I would like to comment on Mr. Hideo Sasaki's remarks of "When in doubt, plant." This is also an observation on Michael Dower's suggestion that we might well think of a goal of transplanting some 10 million big trees to our cities.

We now have the technology in new power hydraulic large-tree transplanting equipment. A mass tree-moving program using native stock of 6 inch- to 10-inch diameters and up to 50 feet tall can be programed by selective harvesting of live trees from natural second-growth forests. Thus we can, with modern equipment, bring—relatively cheaply—the countryside to the older suburbs and save most of the trees in future suburban developments.

CARLTON B. LEES. I am deeply disturbed that The White House Conference on Natural Beauty neglected gardening as an art and horticulture as an applied science. This area of activity has already proved itself an effective tool for creating and maintaining human environment; indeed, this is its purpose.

The conference emphasized the need to educate our population to understand and value beauty through day-by-day exposure. How, then, could the discussions overlook garden programs which also emphasize such related subjects as plant growth and identification, soil care, bird and insect life, and many others?

The solution of taking children out to beauty in schoolbuses, as one panelist suggested, is artificial. I have seen window boxes in Harlem, backyard gardens in Boston's South End, neighborhood gardens in Philadelphia.

These efforts are successful because they involve projects that are attainable, and deeply satisfying to the participants. Education for beauty begins at home. Indeed, one delegate to the conference told of a children's project in which small plots were gardened between sidewalk and curb. "No one would dare pick or trample one of the flowers," she reported, "and the pride of accomplishment is immense." "Gardeners," said Barbara Ward, Lady Jackson, "are extraordinarily good citizens."

The garden concept also relates directly to suburbia. I submit that the best insurance against preventing today's suburb from becoming tomorrow's slum, is through landscape (garden) interest. By creating individual environments for the use, comfort and pleasure of their families, men also provide better total environment. And while gardeners support a tremendous industry involving an enormous range of marketable products and services, their greatest value is in the development of the kind of awareness and action which creates better roadsides, parklands, green spaces; a better country.

Not the least of our problems is that of taking care of this new America. Even now, the level of help available for landscape maintenance is degradingly low. Call it what you like—park, garden, recreation area, natural area—the maintenance is primarily the function of ornamental horticulture.

Good training programs for intelligent and informed managerial types are available in the many two-year schools attached to our land-grant colleges, but horticulture, as a vocation, is attracting fewer every day. In Europe a trained gardener is held in some esteem; in

America he is too often considered something less than a menial laborer.

I suggest that something tangible be done about attracting intelligent young men to this field. There are many who have grown up in marginal farm areas, close to the soil, who would have affinity for such training. They need scholarship help for the two-year programs. At another level, many botanic gardens and arboretums, through their own efforts and funds, are trying to organize training programs to meet this need.

I further submit, that in any future conference which might be called, representatives of the great botanical gardens and arboretums, and other important institutions and organizations be invited to participate. We have been and are working for a more beautiful America, some of us for much more than a century. This is our purpose.

MAX M. THARP. Efforts should be made to guide the development of trailer camps in rural and suburban areas to provide a measure of comparability of environment with other housing. Residents of these areas should be integrated into the community. Such developments could be designed to blend into the more permanent community facilities. They should be regulated through proper zoning ordinances to provide a pleasing environment for their inhabitants.

CHAPTER 16

LANDSCAPE ACTION PROGRAM

10:15 a.m., Tuesday, May 25

The Chairman, Mr. WHYTE. Our subject this morning is landscape action. Other panels are taking big technical chunks of this. Individually, we are learning a great deal from them; in the aggregate, we are learning what a tremendous base for action now exists. We need new tools, certainly; but we already have a lot of tools and separate programs—more than most of us have realized. But how do we tie these together—and where it counts? This is our assignment.

We are going to be talking about Federal and State programs, but what we are really after is local action—it is the catalyst we are looking for. And never was one so needed.

There is a big vacuum in our planning apparatus.

There are hundreds of city, county, and regional planning and recreation commissions—and some are exceptional. But by and large when it comes to the landscape, these organizations have an operational defect.

They don't look at it. I mean this in the literal sense of the word. There are plenty of studies, soil classification and slope maps, open space projects of one kind or another, and these are all very necessary. But the view is bird's-eye. It is from way up there looking down. It is the view of the aerial mosaic, and it is once or twice removed from reality.

The ultimate reality is what we see—and smell and hear—and at ground level, as we walk or drive. We are dealing with effect; some

Members of the Panel on the Landscape Action Program were Representative Wayne N. Aspinall, Edward C. Crafts, Arthur Greeley, Senator Henry M. Jackson, Philip Lewis, Ian McHarg, Max Nicholson, and William H. Whyte (chairman). Staff Associate was William J. Lucas.

might say with illusion. A few key elements in the scene color our perception of the whole out of all proportion.

It is the perception of this that our planning apparatus misses. It is not part of the standard operating procedure.

One reason is that the planning movement in the United States has been largely urban, and largely concerned with development. It has also been concerned with open space and amenity, but not so much for its own sake as for the way it sets off or structures development.

Similarly, landscaping is thought of as a bit tangential, something added on after the fact.

I think we should say out loud here something that has been bothering a lot of people in this conference. They are embarrassed by the term natural beauty. They feel it is not basic enough—or, if you want to use a really dirty word, that it is cosmetic.

Well, cosmetics can be helpful, and we needn't scorn them to realize that something more fundamental is at issue. What delights our eye most is integral to the landscape. Our eyes and our instinct are not bad guides. They sense a unity; what looks beautiful—the meadows, for example, along the flood plain of a stream—and what is important to the resource base of the community tend to be pretty much one and the same.

To a great extent landscape action is rediscovery. Take our crowded eastern seaboard. It is a countryside of hidden assets—such as the brook by the side of the road that you don't see because of the second growth. There are countless such opportunities, and they don't require any technological breakthrough—the spade and the saw have already been invented. What they require is someone to look for them—not just part time but as a part of our day-to-day planning machinery.

So we come back to the question: How do we see that this is done? What carrots do we hold out? We have grants for open space acquisition and grants for development, but all of the many things that could be done to the landscape tend to fall between programs. Nobody is responsible.

A big step has already been taken for the city. In his housing message President Johnson called for a program of townscape grants, and in the housing bill there is a provision for Federal grants for planning and landscaping—if it is geared to the comprehensive planning effort. This can stimulate communities to take the important step of making a real inventory of their visual resources.

This will be fine for the cities. But what about the countryside? There is quite an agenda before us.

JERRY T. VERKLER. Senator Jackson had to chair an important committee meeting this morning, and since he also has to be at the Senate for a vote a little later, he was unable to attend. He asked me to extend his regrets on not being here personally. He did tell me he wanted to emphasize three main points with respect to landscape action and he asked me as staff director of the Senate Committee on Interior and Insular Affairs to bring them to your attention.

The first two are primarily directed from the Federal level. The Senator expressed his belief that an immediate first step that can be taken after all of the talk and the fine thoughts expressed here have been presented is to establish a task force on the Federal level to study all of the Federal water, Federal public works projects, and authorization acts.

Now, this would have to be directed by some central agency with the responsibility and authority to be effective. His preliminary thought would be that the Bureau of the Budget in the Office of the President would be most appropriate to undertake this.

Their mission would be to ascertain the appropriate type of language that could be used to give an administrator in one of the various and separate agencies the type of authority that he would need to begin planning and incorporating this concept of natural beauty in all Federal public works projects.

Now, the Senator believes that it would be better to arrive at a permissive type of authority. In other words, you can understand the complication that would arise if the authority were made mandatory. There are many people who would be involved in planning a program. I would imagine they would have many different concepts of just what is beauty. So you would have to have a general approach, a permissive type of approach, in this by any administrator.

The Senator feels that this is one step that we could begin right away. We would introduce an omnibus type of legislative bill that would cut across the vast complex of the bureaucratic system where we have many, many different Federal agencies sponsoring the various aspects of public works programs. Such a task force and omnibus bill would be a good way to really accomplish a beginning in our drive toward greater beauty.

On his second point, Senator Jackson asked me to stress the technical assistance that is needed and should be provided to local governments and to the States.

We made a big start on this, I believe, in the land and water conservation program by getting the States into the business of developing outdoor recreation resources. This is, of course, an important part of natural beauty; the natural beauty is the added dimension to this new concept of conservation now prevalent. But there has to be something further. Senator Jackson is of the opinion, and, I am sure that most of our Federal administrators here would agree, that there is a vast amount of ability now present and available already on the Federal payroll, so to speak. There is a tremendous amount of ability that can be tapped in the way of providing consulting services to these city and State governments. Rather than authorizing sums of money for grants, he believes there are already human resources available, if properly directed, that could provide help in planning the addition of beauty into these projects by the local governments.

The third point that I want to bring out is the need for greater Federal interagency cooperation in Washington and the field.

We recognize that the Recreation Advisory Council is a fine organization of distinguished members of the Cabinet, but the work that has to be done to get this program started is going to have to be done at local levels. The Council may be helpful in providing guidelines. In the Federal Government, the vast field offices will have to provide the muscle to get the job done, which is what we are all seeking. The Senator believes that if more effort could be made toward developing an interagency concept and functioning at the local and field level, as well as in Washington, it would be a tremendous help in getting the program started.

Statement of REPRESENTATIVE ASPINALL.* Actions authorized by legislation emanating from the House Committee on Interior and Insular Affairs protect the beauty of the countryside through application of the traditional concept of conservation. This means utilization of our natural resources to the fullest possible extent for the maximum good of the maximum number, without waste and, where

* This statement was read for Representative Aspinall by Milton A. Pearl. Mr. Aspinall was unable to be present; he was attending a meeting of the House Rules Committee, then considering the Garrison and the Auburn Folsom South projects.

possible, with replenishment of the renewable resources. Followed faithfully, this concept also provides for construction or installation of facilities that blend harmoniously with, and perhaps even enhance, the beauties of nature.

Adherence to the principle of conservation, in the context of the latter half of the 20th century, requires that we will have planning before we have action.

While I think it is unnecessary to do so for this audience, I would like to point out, for the record, that the Committee on Interior and Insular Affairs of the House of Representatives, of which I have the honor to be chairman, has jurisdiction in many areas that have a direct effect on the appearance of the landscape: Water resource projects; mining generally; the public lands, including reservations created from the public domain; and units of the National Park System, to mention the most significant ones. In approaching legislation within the Committee's jurisdiction I have consistently sought to apply the conservation standard to which I referred at the outset; and I believe that our Committee has likewise consistently approached problems before it with the same standard in mind.

Extremists have been most vocal in spreading alarm concerning future land use. On the one hand we are told that, unless the United States retains practically every inch of land it now owns, we will soon be crowded into standing room only; on the other extreme we are besieged by developers seeking to obtain the right to utilize any and all lands with financial pressures becoming paramount above all other considerations, including aesthetics.

It has always been our desire that programs presented to the House Interior Committee be completely engineered and developed in advance to permit us to evaluate all aspects to the fullest and permit us to base our decisions on knowledge of the facts. We have had to weigh, and increasingly we will have to weigh, between development—which many call progress—and preservation; increasingly we will be required to decide questions of how proposed projects involve alteration of the earth's surface, the flow of rivers, and the intrusion into areas previously set aside for some other purposes. Given the facts and permitted to make choices, we will continue, as I think we have in the past, to authorize those proposals that will enhance the landscape and provide features pleasing to the eye rather than those that will destroy the area or substitute features that distract from the countryside.

The legislative committee, in other words, is the forum where conflicting proposed uses are analyzed. And, while we will, I believe, make conclusions that will lead to over-all enhancement of appearance, I want to make it clear that, where private development is appropriate, we must not stifle the ability to make profit through the imposition of burdensome unrealistic requirements under the guise of seeking beauty. A balance will be achieved through a common sense application of the conservation principle.

We have introduced this principle in the authorization we enacted in the last Congress for the disposal of some public lands during the period of the Public Land Law Review Commission study. This temporary authority for the sale of public lands that have been classified for disposal provides that no sale shall be conducted until zoning regulations have been enacted by the agency having local authority. This, of course, will permit integration of the public lands into a comprehensive plan developed by the people who know the area best. We have established a procedure that can provide harmonious and compatible adjacent uses. It is my own opinion that, aside from the actions of thoughtless individuals, the greatest contributing factor to ugliness is the failure to develop land for its highest and best use.

In the long range uses of the public lands, I trust that the Public Land Law Review Commission will keep in mind, during its study, the principle of traditional conservationism which will permit a balance to be struck, thereby assuring maximum protection of the countryside.

Another example of how we have sought to encourage wise planning is the legislation passed by both Houses of Congress, with minor differences to be reconciled between the two Houses, to establish uniform policies for the evaluation of recreation and fish and wildlife benefits at Federal multiple-purpose water resource projects and to authorize the Secretary of the Interior to provide for recreational development of projects under his control. Here again we are applying the traditional conservation standard of effecting the best possible use for as many purposes as possible, thereby reaching the maximum number of people. While we must insist that Federal projects be based on solid principles, we, at least, can provide for the amenities which the financial pressures may cause a private investor to forsake.

In this discussion I have focused attention on those aspects of our committee jurisdiction relating to the over-all category of the "coun-

tryside," with which this panel is concerned. For the record I also want to point out that we do have opportunities, through other areas of jurisdiction to exercise some influence in the category identified generally as "the city" as well as the rapidly expanding category midway between "city" and "countryside."

But, whether it be in the countryside or in the city the same principles will, I submit, apply; and we will be guided by the traditional conservation standards adapted to the present day needs and aspirations of the American people. As we apply these principles legislatively, I urge all of you—in and out of government—to join in an educational campaign that will stop the frustration of our plans and hopes by those who scatter beer cans and other litter across the lands and facilities we struggle to preserve and make available for the public in a pleasing atmosphere.

Mr. CRAFTS. There is a close relationship—and partial overlapping—between outdoor recreation and natural beauty. Many forms of outdoor recreation include enjoyment of natural beauty. The two terms are not synonymous but neither can they be considered separately.

What we really are talking about is quality of environment and this must cover not only the preservation of primitive and natural areas, but also include the good environment that man should create in and about cities and the countryside.

In short, we are trying to catch up on the adverse effects of industrialization and urbanization.

I know that in this conference we are supposed to think new and think big. But I am disturbed that what I have heard so far tends to sweep under the rug the very great accomplishments that have been made in recent years, the many ongoing programs that are currently underway, and the new proposals that are in the pipeline.

It would be a great mistake and less than generous, in my judgment, for this conference not to give appropriate recognition to past accomplishments and current activities. It is very easy to find fault. It is especially easy for those who do not have responsibility.

Let us make our recommendations both practical and constructive. Let us not be naive in the art of the possible. Programs and ideas are both plentiful. But the practical politics of conservation is something that a good many of us should know more about.

Some existing action programs that deserve recognition include effective implementation of the Wilderness Act, the Land and Water

Conservation Fund Act, and the Open Space Program. Acquisition and development of parks, wilderness areas, recreation areas, lakeshores, and seashores fall within this category. Highway beautification has recently become an ongoing program.

The 87th and 88th Congresses took more affirmative action to encourage natural beauty and related outdoor recreation programs than any past Congress. This conference should say so.

As to programs in the pipeline, these include: (1) completion of our national system of parks, forests, recreation and wilderness areas, and seashores, including Assateague, Tocks Island and other specific areas enumerated in the President's Natural Beauty Message. There should be a Redwoods National Park and an Allagash National Riverway. On the Allagash, the State so far has left a vacuum. In my judgment, it is time for the Federal establishment to move; (2) creation of a system of free-flowing unpolluted wild rivers, proposals for which are now before the Congress; (3) construction of a national and related State system of scenic roads and parkways, now under study by the Recreation Advisory Council; (4) establishment of a national system of hiking and riding trails in cooperation with State and local governments and private groups; (5) an inventory of excess military lands to earmark those suitable for preservation as recreation and related areas; and (6) effective control of unsightly features of the countryside, such as billboards, utility lines, and the well-advertised junkyards.

Most such proposals will require Congressional action. This conference should say what it thinks about them.

No program gets far without effective leadership. There is leadership in the natural beauty program in the executive branch at the present time. It rests in the White House and the Department of the Interior.

But Congress and the State legislatures are the basic policy bodies and it is not yet clear what priority or to what extent Congress or the State legislatures wish to make policy in this field. I would like to see a basic policy declaration by the Congress encompassing all Federal programs that have a bearing on natural beauty.

Clarification of the extent to which the Land and Water Conservation Fund and Open Space programs should deal with natural beauty would be helpful. Presently, landscaping programs could come within the purview of the Fund Act, but there should not be specific earmarking or priority directives. State and local governments

want initiative but they also want Federal dollars. I would not like to see proposals to amend the Fund Act, at least not until we have had a year or two of experience.

The role of the Recreation Advisory Council with respect to natural beauty needs to be clarified because of the close relationship between natural beauty and outdoor recreation.

We have heard a good bit in this conference about the Advisory Council, the Bureau of Outdoor Recreation, and its location in the Department of the Interior. As administrator of the Fund Act, as Director of the Bureau, and as chief staff aide to the Council, I have given considerable thought to these matters in the last several years.

I want to say flat out that I disagree with any proposal to divorce the Bureau of Outdoor Recreation from the Department of the Interior. We have been helped, not hindered, by being in Interior—the prime function of which is conservation of natural resources. We have had the strength of the Secretary of the Interior behind us. Also, if the Bureau of Outdoor Recreation were to become purely a staff agency to the Advisory Council, the operating muscle to implement natural beauty and recreation, that is now available through the Land and Water Conservation Fund Act, would be lost to this Bureau.

A directive from the Congress or the Recreation Advisory Council to include natural beauty in the nationwide outdoor recreation plan that is being prepared under the organic act of the Bureau of Outdoor Recreation would be effective because other Federal programs must be carried out in conformance with that plan after its submission to the Congress in 1968. Here is another example of muscle already available.

There are many other things that could be recommended, such as education—both general and professional—demonstration areas, advisory groups, and financial inducements other than matching grants, such as loans, tax relief, and insurance aids.

Policy with respect to regulatory agencies is unclear. License requirements of the Federal Power Commission might well include natural beauty specifically. Local zoning could be an effective instrument to accomplish landscaping, and to control billboards and other unsightly features. Other types of regulation could moderate pollution, both air and water.

Finally, there needs to be crystallization of public opinion.

Through actions of the Congress and other groups and individuals up and down the line, public opinion will gradually clarify. In the process, this will determine the relative importance of natural beauty in competition with other domestic and foreign issues of the day, such as education, defense, poverty, and space exploration.

At the moment, not only the meaning of natural beauty, but also its priority in the national scheme of things, await clarification.

Mr. GREELEY. This panel is talking about the countryside and we are talking about programs and activities that are going to be going on for a long time.

My remarks are pointed to possible courses of action, about the resources of the countryside, based very largely on existing programs.

We need to remember, and it is axiomatic, in fact, that the people of this country are the stewards of its resources.

For more than a century, the Department of Agriculture has been working with these stewards. Today, the department has some program responsibility for four of every five acres of land in the 48 contiguous States.

This 100-year relationship with people and with resources has led us to basic understanding of natural beauty.

In large measure, natural beauty is a living resource composed of soils, plants, grasses, trees, and water.

A part of this living resource is that man's impact would be blended in an aesthetically pleasing way.

Natural beauty is also dependent upon the state of mind of people. It is a corollary of their economic and social condition.

We all desire beauty in our lives, and this tremendous White House conference was called to emphasize this desire.

Those of us participating in this conference must never forget that natural beauty is of secondary importance to people without jobs or without enough to eat, or without enough income to meet basic family needs.

So the things that are discussed here concerning beauty in the American landscape must supplement the present efforts to improve economic and social conditions in rural America.

Within this department, these include the Rural Areas Development Program, Rural Renewal, Resource Conservation and Development projects, as well as the Job Corps and basic department programs for rural people, agricultural improvement, and natural resource management.

An action program for beauty in the American landscape necessarily cannot apply to every rural area. The concepts involved in a broad program need to be made specific. For this purpose the idea of "target areas" is helpful. These are areas which are prominent for many people to see and where ugliness, or the absence of beauty, is jarring to most people. We will do well to especially concentrate our action upon such target areas—adjacent to roads, adjacent to lakes and streams, and adjacent to the places where people live and work.

Programs of action to beautify the landscape of rural America require:

1. Motivating people, and local units of government, to want to act.
2. Making available "how to do" information, including soil information.
3. Obtaining good "what is to be done" plans for the target areas, plans that are locally prepared or locally approved.
4. Financing help from various levels of government.
5. Lots of publicity, and making a fuss over accomplishments of local groups.
6. Stepped up research.
7. Having the Federal Government set a good example at its installations and in its programs.

There are Department of Agriculture programs that fit at every step of this process. Secretary Freeman has directed Agriculture's agencies to do everything within their power to help beautify rural America—from motivation to setting a good example. He has established a coordinating focus for departmental activities in the Assistant Secretary for Rural Development and Conservation and the newly established Rural Community Development Service. The different agency responsibilities include:

1. The Federal Extension Service is to provide leadership in developing and initiating education programs in cooperation with the Cooperative State Extension Service. Theirs is the job of motivating people and local governmental units to want to act.
2. The Forest Service and Soil Conservation Service are to provide technical assistance to landowners, communities, etc., in accordance with their present methods of carrying out leadership responsibilities. This is the "how to do" information, and the "what is to be done" plans. This assistance will emphasize the multiple

use planning approach to enhancement of beauty; that is, working beauty actions in with other activities.

3. The Farmers Home Administration is to provide financial assistance to individual landowners, eligible under its programs.

4. The Agricultural Stabilization and Conservation Service is to provide cost sharing for practices and programs that contribute to natural beauty.

5. The Rural Electrification Administration will make a continuing effort to develop ways for reducing costs of installing underground utility lines.

6. The Office of Information will provide over-all coordination of the information activities to assure lots of publicity and making a fuss over accomplishments of local groups.

7. The Agricultural Research Service, Economic Research Service, and the Forest Service will undertake research and provide interpretations of past and current information.

8. All agencies are to review present landscaping plans of premises they administer and take action to improve them.

9. The State and local technical action panels are directed to work with State and local rural area development committees to determine the "what is to be done" programs needed in their respective areas. These programs should be locally prepared and approved. Target areas should be the primary concern of the programs to assure a reasonable rate of progress, and to assure attention to "first things first."

To complement all these assigned responsibilities in the countryside, a modest grant program is needed. It can be based upon the Soil Conservation Act of 1935, the Clarke-McNary Act of 1924, the Food Agricultural Act of 1942, and the Soil Bank Act as now proposed for amendment in the Congress. This grant program should be designed so that the Secretary of Agriculture may enter into agreements or contracts with responsible units of governments or other responsible organizations. The purpose is to plan and carry out programs of resource conservation and development that will contribute to enhancing the beauty of the countryside for the long-term good of rural and urban people alike.

The grant program also needs to provide for the preparation of plans by units, such as counties, so that component parts of a beauty action program will fit rather than be in conflict.

In the Department of Agriculture's programs, especially those on the national forests, we fit together and manipulate the elements that

comprise the landscape—forests and water, conifer and hardwood trees, fields and roads, wilderness and developed areas, and differing kinds of land uses. Other professional people in other agencies of government at all levels, and a good many private owners of land, have similar experience and comparable levels of knowledge regarding mixing land uses in a manner that is aesthetically pleasing. But this knowledge is not being interchanged.

A very desirable program to come out of this conference would be a plan to arrange for interchange of information on effective ways in which problems have been solved in planning for land use and beauty. This could be by means of seminars, joint meetings of different professional societies, and publications. I am sure both foresters and landscape architects could benefit immensely from talking together in a joint national meeting of the Society of American Foresters and the American Society of Landscape Architects. There are other such combinations for which joint meetings could be of immense benefit to the President's programs.

Professor McHARG. I believe that the primary concern of this conference is not Natural Beauty but rather the place of man in nature and the place of nature in the environment of man.

Nature has been erased from the city of man which spreads inexorably into the countryside—its image the bulldozer, hot dog stand, gas station, diner, billboard, sagging wire, split-level, rancher, asphalt and concrete. Contemplate the prospect of New York adding 1,500 square miles of sterilising smear in the next 20 years, consider the 55 million acres of presently rural land in the United States which will be transformed during the same period to urban anarchy and despoliation.

Yet the paradox and tragedy of urbanization and growth is that, while based upon a profound and pervasive desire for more natural environments, it destroys its own objectives. The American dream recedes with each annular ring of suburbanization to a more distant area and a future generation. For this is the sad pattern by which those who escape to the country are encased with their disillusion in the enveloping suburb. It is a Utopia only for those who make it and profit thereby—insensitive beings, despoilers, acute only to money.

We cannot indulge the despoiler any longer. He must be identified for what he is, as one who destroys the inheritance of living and unborn Americans, an uglifier who is unworthy of the right to look his

fellows in the eye—be he who he is—industrialist, merchant, developer, Christian, Jew or agnostic.

Yet growth is inevitable and must be accommodated. What rules should guide the nature and location of development, the preservation of natural processes and beauty? Certainly not the prevailing process which, observed dispassionately, would seem to suggest that water is made to be befouled, air to be polluted, marshes to be filled, streams to be culverted, rivers to be dammed, farms subdivided, forests felled, flood plains occupied and wildlife eradicated.

If one examined the face of man-made America as a product of conscious choice it would appear that we preferred a dilute soup of dead bacteria in a chlorine solution to clean water, an admixture of lead, hydrocarbons and carcinogens in our air, selected beautiful rivers for dumps, junkyards and sewage disposal, and had formulated a national policy for the eradication of natural beauty and integrated this into policies for highways, housing, industry, transportation and agriculture. It would further appear as if anarchy and ugliness were the criteria of excellence for cities. The automobile was pre-eminent over man. Open space in cities was a positive evil to be eradicated. God's Own Junkyard—the chosen symbol of our time and society.

Clearly this is not the conscious choice of the American people, not the physical image of democracy, not the face of The Great Society. What simple rules can lead to a fairer image? Some guide lines are necessary so that men of good will and intelligence in both private and public domains can contribute to preservation and creation of noble and ennobling environments. Land use regulations have a high priority. They cannot ensure art but they can avert folly, avarice and mindless destruction. They can provide the basis and the context for excellence. These should devolve in the first case from an understanding of nature and natural processes, the values of land, its air, water and biotic resources, their roles, their tolerance and intolerance to man and his artifacts.

A research project which I have conducted for the Urban Renewal Administration on the development of criteria for selecting metropolitan open space for the Philadelphia Metropolitan area can illustrate this approach. Given abundant land and choice, given an understanding of the major physiographic regions, their ecological communities, their permissiveness and prohibition to development, then certain restraints, upon land use, based upon natural processes,

seem both inevitable and desirable. These are the simple rules for the New Conservation.

Surface water and riparian lands should be utilized only for functions inseparable from waterfront locations—ports, harbors, marinas, water-related and water-using industries. In the Philadelphia region where there are 5,000 miles of rivers, such uses as would be permitted might consume 50 miles of waterfront location. For the remainder agriculture, forestry, recreation, open space for housing, and also institutions would be appropriate.

Water quality would be regulated by the natural capacity of rivers and streams to reduce pollutants and sewer outfalls would be located in response to this capacity to ensure continuous high quality water for both consumption and recreation. Water quality standards would be defined—not by dead bacteria or chlorine but by the number and distribution of living aquatic organisms as advocated by Dr. Ruth Patrick.

Marshes would be preserved as flood storage areas and wildlife habitats. Filling or development would be prohibited.

Fifty-year-flood-plains would be prohibited to all development save those inseparable from waterfront locations plus agriculture, forestry, recreation and open space uses. Flood plains are not for people.

Ground water or aquifers are an invaluable resource. In New Jersey the water below is the valuable constituent of the land above. The factors of percolation, storage, water quality, recharge and withdrawals, flood and drought control should be managed. These require restraints upon land use. Injection wells, toxic wastes, atomic reactors, sewage treatment plants, and similar hazards to water resources should be explicitly prohibited and other land uses permitted in relation to their effect upon the water regimen.

Soils are living systems, the most productive soils are products of geological time and are irreplaceable. Given land abundance and choice, it is recommended that prime agricultural land be prohibited to development.

Steep slopes and the ridges and mountains they constitute are a major source of erosion and sediment, disequilibrium in water systems, increased turbidity, diminished biotic habitats, natural water purification, threat to flood control structures and reservoirs. Such erosion presents enormous problems and costs for flood control, water treatment, navigation, and channel maintenance. Regulation on steep slopes of 12 degrees or more would forbid cultivation or devel-

opment where unforested and limit development on forested slopes to not more than one house per three acres.

Forests and woodlands are the major regulators of equilibrium in the water system and diminish oscillation between flood and drought. They are important to water quality. They exercise a profound effect upon climate and microclimate and represent a prime scenic and recreational resource. In principle, forests and woodlands are recommended for forestry, water catchment areas, airsheds, recreation and, under certain conditions, for housing but in clusters at a density not exceeding one home per acre.

These restraints, if imposed upon the 3,500 square miles of the Philadelphia Metropolitan area, would not, according to Dr. William Grigsby, incur any total economic costs. They would canalize development and structure growth but they would not consequentially affect time-distance from city to suburb or the aggregate of value added by development. They would protect natural beauty and natural processes, provide structure for growth, ensure a functional interfusion of open space and development.

I therefore recommend to this Conference the formulation of a National Land Use Policy based upon ecology, with explicit regulations. From this may emerge the image of the place of nature in the metropolis of man, the place of man in nature.

Prof. LEWIS. The time has never been better for action programs to conserve and develop wisely the meaningful objects within our American landscape and townscapes.

I feel, however, that all of the many action programs that have been mentioned these past two days should be based upon a much better understanding of: (1) what these meaningful objects within our landscape are, and (2) where within our landscape these many natural and cultural values are located. Both suggest a State-by-State landscape value inventory.

In Wisconsin, we looked at the urban landscape, we saw a man surrounded by asphalt walls and steelscapes, and the chewing gum that was mentioned earlier.

We then took a look at the countryside to see what was truly meaningful in the Wisconsin scene.

In our report, we suggested that there were four surface elements—water, wet land, flood plains, and sand soils—that tie the landscape together.

We also suggested that these surface patterns were enclosed by

varying degrees of slope in Wisconsin, slopes of 12 percent or greater, hopefully being protected through good soil conservation surface practices protecting the water below.

We also said there was another pattern formed by the rims which enclose these various slopes. It is from these rims that we could look down upon the flat surface patterns and see the beauty of the pattern. We found these rims were important when it came to laying out the hiking and bicycling trails and the scenic highway systems.

In Wisconsin, we looked at these various patterns of water wet land and steep topography, recognizing that they combined into a linear system that intertwines and connects the various parts of the State.

To point out the importance of this contrasting pattern of diversity, we located the other meaningful resource elements within the landscape. We created symbols to portray these resources—waterfalls, chasms, bathing beaches, natural springs, natural bridges, caves, etc. We then identified the many cultural, historical items—battlefields, theaters, pioneer churches. We identified the wildlife habitat and indicated this by the silhouette of the animal.

We identified 260 elements that were meaningful to some part of our society. Supposedly on the whole national scale we could add to this list. But these were the meaningful elements in Wisconsin. I might say that to identify what those meaningful elements are, means getting in the landscape on a county-by-county scale to see where they exist.

We next turned to the highway department, which has very fine camera equipment. We had maps blown up to scale of 1 inch to 2,000 feet. We ran blue line prints of all the counties and provided these blue line prints to the field people of the cooperating agencies.

On going to the Conservation Department, the Agricultural Extension Service, the State historical society, and the U.S. Soil Conservation Service, we found their field people knew the counties like the back of their hands and within three days they could identify on the maps these 260 values for us.

The Agricultural Extension people also were concerned with the negative values in the landscape.

In other words, on a county-by-county scale, we identified all the water, all the wet land, the 12-percent slope, the sandy soils and the timber patterns. We blocked out the patterns on a county-by-

county basis and the patterns fell into linear systems. The patterns contain the lands in the flood plains and the land too steep to plow. These patterns are called corridor systems.

We then, taking those corridor systems, plotted our 260 recreation resources values. The rather exciting result was that we found 90 percent of these 260 resources fell within these linear corridor systems. Many times they were clustered within the corridor. We had located the areas of greatest diversity that offer an opportunity to meet the demands for recreation in the future.

We also found that many of our public lands fell within that corridor system.

The Conservation Department sent their field people in. They identified all the first, second, and third priority land for fish and game. The patterns found were identical to the corridor system. So we found all of these meaningful values, not only for regulation of water, fish and wildlife and recreation, but for living and working as well falling within the corridors.

We then knew in the State where our resources were, and what it meant in terms of getting people from here to there to utilize the resources. I need to point out that we have created all types of vehicles in this country, to move people from here to there, and that people move in a linear corridor.

In formulating our scenic highway program, we take these natural corridors, superimpose on the system designs that have been inventoried, the highway and trail patterns, and see where these systems run adjacent or across these meaningful patterns. The areas so identified need protection. If there is an area here that will not withstand a great deal of traffic, we need to relieve the pressure on that synoptic area. But we can't do anything until we know where the resources are.

We can also use these natural corridor systems as an approach to regional, statewide design, hopefully guiding the form of a city in harmony with these natural patterns rather than allowing unguided sprawl to prevail.

In closing, I would like to make two proposals. First, that the President of the United States, through the Recreation Advisory Council, take appropriate action to encourage statewide conferences on landscape and townscape and to promote a wider understanding of the problem and the opportunities considered in this natural beauty conference. Leadership for such conferences might well be from our universities.

Second, that funds be made available to establish a series of pilot programs of local countryside inventory, analysis and design within these same institutions.

Mr. NICHOLSON. Following Dr. Crafts, I would like to return to the question of what natural beauty means to this conference. It seems to come by means which certainly are not natural. Similarly, landscape is a scene. Landscape action is a deceptively simple label for an extremely complicated and difficult process. I say this not in criticism but just to remind us that at the end of the day our task is to knit together all the knowledge and experience and good intentions and existing organizations into a continuous and enduring flow process based on the right idea systems to harmonize the countless human actions with countless natural resources, some static, some no less dynamic than ourselves.

Landscape itself is one of these idea systems. To many, it still means nothing at all. Where man is at work, landscape implies some visual expression of a fruitful two-way relationship between man and landscape to produce what we call here a high-quality environment. Yet, today's landscape is too often chaotic, reflecting muddled thinking, confused values, and shortsighted land use practices.

We have learned that it will be good for us in many ways if we attain a harmony between man and nature, and it is bad for us if we do not. We have heard this from Mr. McHarg. How many Americans really understand this as the Chinese understand it and have understood it for centuries? So far, Western man has expected nature to do all the adapting. Where nature has failed to adapt, man has been slow to accept the fact, but now it is his turn to accept his obligation.

Our task, as I understand it, on this panel, is strategic, not tactical. We are here to help those who cannot see the wood for the trees. But we must not forget to show them a way through the woods also. We need to show how problems, each large in itself, can be fitted in to a clear group of problems. In this we can be helped by the great synoptic disciplines of economics and ecology which teach us how to organize and interpret data on a grand scale.

I am lucky to have followed Prof. Lewis, because I think the work he has been describing is among the best examples I have ever seen of how a great mass of data can be organized and presented in a meaningful relation to each other, not just left to hundreds of different workers. This is exactly the way we have to go about it.

We can also learn from international conferences, provided they concern the same problems.

I am responsible, as the chairman has said, for the counterpart of this conference in Great Britain. We first met in 1963. We are meeting again next November. We cover the same ground, but from a different angle.

I am constantly being told by Americans that Britain is far ahead in these matters. I think at best this is a half truth. And I would like to say a word in support of what Dr. Crafts has said—there are many great Americans who have done so much to give your country a lead in so many ways. In many of these activities it is the United States that leads the world. For instance, in outdoor recreation studies and facilities, in national and State parks and forests, in multipurpose use, in soil conservation, in interpretive services, in wayside facilities, and in the national network of wildlife refuges.

I would add that this conference is another example of something which has not and could not be repeated in any other country.

On the other hand, Britain, I think, is well ahead in zoning and greenbelts, in rehabilitation of derelict lands, in natural science research for conservation, and in evolving a coordinated system of land use priority.

Britain has also a great heritage of landscape assets. This impresses visitors. What impresses us is the speed with which the assets are being thrown away. On the whole, our respective strong and weak points are complementary, so mutual aid is indicated. For this, we need a picture of the flow process. What I suggest very briefly is this: First comes a better understanding of the whole field. A conference like this is excellent, so long as someone has done the homework—the thinking, the survey and above all, the research to give us the basic facts to analyze and synthesize the real problems and to hammer out guidelines. This means more ecological research, more applied ecological studies for conservation, more survey and inventory work, more social science studies on uses, more technological analysis of the human impact on the land. We have more work to do in the storage and retrieval of data. Never forget that research, properly directed and used, is in itself a most important form of action.

The second area is education. Time is so short that I merely stress here the need for the landscaping profession to have a common training in conservation and land use as exists in the ecological

professions, that is, the regional planning, civil engineering, and forestry professions. There is a need here for developing some corps of elite leaders, a group of professional leaders who work together as a team to give the leadership.

The third area is governmental action. This is being discussed at great length both here and abroad and by the Recreation Advisory Council. A great deal of sense has been brought to bear on this. I was very impressed by this morning's meeting. I was impressed by the Recreation Advisory Council and its common understanding of the problem. I want to stress that it is my view that organization of agencies is relatively less important. What is important is that there is a common understanding, and that there is a method of coordinating the work of different agencies.

In the legislative area, Britain has one thing that I think might be usefully adopted here. We have an amenity clause which is made an actual part of electricity supply, water supply, and all kinds of big projects. It is a standard clause which requires that the project will have regard for amenities, natural science considerations, etc. Together with statements of intent this gives a broad framework which can then be followed up at the executive level by executive orders and, above all, by seeing to it that the financing follows the policy. This is necessary so that you are not, in fact, subsidizing or giving tax concessions to activities which are antisocial. This is one of the most obstinate followthroughs to accomplish.

I think, just to sum up, we have to look at the forest as a whole. We have these words that have come up so often—leadership at the grass roots level, forming the catalyst. These are the sort of factors which have to be considered in handling this vast mass of fluid material, all the different levels of citizens from the national to local level, and all the different disciplines in line. In order to do that, the people who are going to do the job must have a better training and a common link in their training. You cannot get these things done simply by committees. All the people who are going to follow through are strangers. You also, of course, have to educate the land users, including those who manage the land. But I think that we must remember that the landscape is a mirror. And that we have to keep looking in that mirror.

What does the mirror show? I will not attempt to answer that, as Mr. McHarg has already answered it for us.

Questions and Discussion

Mr. WHYTE. I take strong exception to something that Mr. Crafts said, or perhaps I misunderstood him. You supervise all this Land and Water Conservation Fund money. Can't we shake some of it loose for landscape action programing?

You made the point that you think it would be wrong to earmark any of this money for specific purposes.

I ask the question, how can we ever get some of these new devices applied, particularly in the landscape field, if we don't earmark money?

Consider the sorry history of the Section 319 program for highway landscaping, and other toothless incentives. They say here is some money you can use for new and imaginative action—if you want to use it that way. But if you want to spend it the same old way you've been doing all along, you can have the money anyways. The result, naturally, is the same old way.

I would like to throw this proposition to you. Can we not have countryside grants comparable to the townscape grants which the Housing and Home Finance Agency is going to administer—a program which would say to the community we are going to help you out on the planning, help you on the cost, but the main thing is, go out and get going, take an inventory of your landscape and get a long-range program going.

Number two, could there not be incentives earmarked for a much broader use of devices in addition to outright acquisition, such as the scenic easement, purchase and lease-back? These devices don't seem to get tried until, as in Wisconsin, money is deliberately earmarked for them.

Is there any opportunity under the Land and Water Conservation Fund for these kind of incentives?

Mr. CRAFTS. Well, Senator Muskie said yesterday that you don't get a clear-cut answer from a Senator. I am not sure you are going to get a clear-cut answer from an administrator.

I will have to try to catalog your questions a little bit.

First of all, money under the Fund Act is eligible for use for townscape purposes, landscape purposes, if it fits within the comprehensive, statewide outdoor recreation plan as approved by the Secretary of the Interior.

Now, if your question is, should a portion of this fund be earmarked by statute; that is, should we say it must be used for this purpose as defined by the statute? I would say that I would be opposed to this at this time, for a number of reasons.

In the first place, the Fund Act is new. We are just moving into its implementation. No single statewide plan has come in as yet.

We have in our planning requirements inclusion of landscaping as one of the things that the States may propose. I think maybe you ought to leave a little administrative discretion in for a year or two.

This is what I meant by saying that I think some general policy guidelines, either from the Recreation Advisory Council or from the Congress, would be helpful, but a specific directive that 10, 15, or 5 percent or whatever it must be, must be used for this purpose, takes that much away from the State and local government.

This means, in effect, that you give a preferential position to this particular activity which is only a part of the Fund Act. You open up a Pandora's box of other proposals to earmark other aspects of the fund, and once you start, where do you stop?

If you are talking about a supplemental program or another program which would be a grant program or a technical assistance program, this, I think, is more in the ballpark. But again, you run up against a very difficult situation in the Congress of earmarking funds for particular purposes. A statutory authorization for funds out of the Treasury is more likely to succeed.

Dr. CLARENCE COTTAM. I spent 25 years here in Washington, D.C., as a Federal bureaucrat, and for the past nine years I have been a private citizen in Texas. Having had 25 years' experience in Federal government in a fairly responsible position, it seems to me there are quite a number of things that can be done immediately without drawing any extra cash. We ought to separate the things that can be done from the things that cost money.

I recognize a number of things. Some of them are that we need government policy, a declaration of some policy by the Congress, perhaps, or at least by the Executive Branch of government. One is to use properly the land that the Good Lord gave us. For example, let me give you one or two illustrations of this.

We have been subsidizing the incompetent farmer for a good many years. We have been encouraging him indirectly, not purposefully, but indirectly to continue the erosion of the landscape. Let me say that I think we ought to stop subsidizing the farmer who tries to

carry on agriculture on a 30-percent slope. We have had too much of that in the past. I know there has been tremendous progress made in the past two or three years but it is coming a little late.

We have experienced some severe overgrazing on Federal lands. I am speaking of all 11 of the western States. I think a policy should declare that Federal land should be used only within the carrying capacity of that land.

I have seen land in the Forest Service, one of Mr. Crafts' former bureaus, and I can cite my own in the Fish and Wildlife Service, which was severely overgrazed, particularly by users on lands that were adjacent to their own land. Their own land was in much better shape simply because the man who had the right to graze would overgraze the public land where he would not overgraze his own.

The Secretary of Agriculture, at the last White House conference, pointed out there were 50 million acres, despite the explosion of population, that need to be retired from agriculture. I think we ought to get along with this and use the land for its proper capabilities.

Some of these things, I think, are fundamental.

We need an ecological survey. It seems to me that economics and beautification can go hand in hand with proper land use practices. Ugly land is land which is abused.

ROBERT S. ORCUTT. I have a couple of recommendations, Mr. Chairman, that I would like to offer at this time.

The first is in regard to the allocation of functions between the Bureau of Outdoor Recreation and the Housing and Home Finance Agency that was brought up this morning in front of the Council. I would just suggest that those who are involved with trying to work out the various spheres of operation get to their agreement soon. Also, in considering the spheres of operation, they should be careful not to use some arbitrary boundaries which have been set up by another agency for another purpose.

Please avoid the straitjackets of unrealistic boundaries. I am referring specifically to the SMSA areas. I think the agencies involved should retain as much flexibility, both on their own level and also at the State level.

My second recommendation is that the Federal Government start now to consider natural beauty as one of the criteria to be considered

when it authorizes any type of project. I think we can start out now, even without official action.

I would think certainly the Bureau of Outdoor Recreation and the Housing and Home Finance Agency, if and when they start on their development grants, should state as a policy position that one of the criteria they will use in authorizing a development project will be natural beauty. In this way, a start can be made by an official of an appropriate governmental agency.

This will not cost anything.

Mrs. E. PAGE ALLINSON. Mr. Chairman, the Secretary of Health, Education, and Welfare this morning briefly referred to vandalism. It seems to me that vandalism and litter are a great menace to our landscape.

To use an example, which is really a town example, in West Chester, Pa., recently when a number of young trees were planted, not one, but dozens of them were broken off almost at the root level so that the trees were completely ruined. This happens also in the country. I would like to know if anyone has found an answer to this sort of vandalism. Of course, I know education is one answer. But there might be a quicker one.

F. J. MACDONALD. In order to facilitate this program, we might have three activities on a local level. First would be a series of awards and competition to encourage competition on the local and State level. Such an awards program would make available to all areas certain funds and considerable publicity when specific criteria are met. The competition could be based on both the design and the actual construction or installation of the design. Winners could receive Federal prize money as well as much publicity in both of these categories.

Second, the land grant colleges and universities should develop seminars in cooperation with local organizations, possibly landscape architects, landscape contractors, and nurserymen, to enable the local areas to qualify for the awards mentioned, as well as to educate or orient the State and local people who are interested.

These seminars or clinics also need recognition and publicity. It is important that the universities and colleges take the incentive in developing these programs, as well as provide guidance, but the emphasis should be placed on publicity which is on the local personnel participation.

And thirdly, the regional, State and local landscape architects should be retained to keep the program on a steady basis. These people should be employed on a "while employed" basis, to work with the existing agencies to make the awards, and sometimes draw plans.

It is important that those chosen for this task be quite familiar, through several years' experience in these areas, with the climatic and natural and available plant life conditions.

We submit this as a proposed method of starting on the local level.

PAUL N. CARLIN. In your introductory comments you said you were looking for specific courses of action which can be followed at the local level.

I would like to report, as a representative of the National Association of Counties, that the elected leaders of both the city and county governments are willing to participate in many of these programs. What they need from people such as are represented at this conference and in this room today is their enthusiastic expression of support. These elected leaders need to know the types of programs you are interested in. As an illustration of what I am talking about, you can find many county and city governments willing to undertake projects such as the Harris County astrodome, in Houston, Tex., a project encompassing a \$30 million expenditure, all the way down to small counties in northern Idaho or small towns and counties in North Carolina, which are willing to cooperatively work together with Federal agencies and citizen organizations to develop programs.

What they need more than anything else is the continued support of individual citizens and individual groups within their communities.

TED KREINES. I am a city planner with the Peace Corps in Tunisia.

It seems to me that every point which has been brought up at this conference and others I have attended, all fall back to education—education either of our leaders in local and municipal governments, or of such people as vandals, farmers with slopes, or those people who live in the flood plains.

Whatever the problem is, it seems to me it is some type of education which is lacking.

Prof. Lewis so overwhelmed us with the techniques which he uses and has been using in Wisconsin, that I did not get a good idea of what he meant by establishing an awareness among the general

public. Could you be a little more specific on what you mean by that?

Prof. LEWIS. I think the great thing we have to do is, first, as I said, identify what is meaningful in our landscape; then use every form of communication at our command—television, or some of the new computer systems we are developing to convey these messages in graphic form to the local residents. If we can develop an awareness through centers or projects at the local level, where we can bring people, school children and the students from the universities to explain what is meaningful in the environment, and graphically where these various values lie, then we have a better chance to encourage local and county support, and local citizen support, to get some of these tasks completed.

As long as no one has really concentrated on what is meaningful, I do not think we will ever get any comprehensive program developed.

In Wisconsin, we have more than 100 different conservation groups and I have presented this list of 260 values to these most interested groups.

I have always found that each group is only interested in protecting the wildlife areas, the historic markers, or the archeological sites—whatever they, themselves, sponsor.

I think one of our main tasks is to make these groups aware of the total package of resources, make them aware that their individual resource lies in a pattern, and reemphasize the importance of detecting the pattern rather than the resource.

This has to be done by inventory and using our very finest graphic communications to portray these sources.

JOSEPH N. GILL. Speaking of the educational process and where you get the best knowledge, the States of Massachusetts and Connecticut during the past few years have developed a device which I have not heard discussed here today: local conservation commissions. We get tremendous leverage in this educational process at the local level. These are the people who work with local planning and zoning boards. They do not compete with but are assistants to them, and I would hope for the record that other States might be encouraged to join them. You should have a few women, particularly at the local level, on these conservation commissions. They may not be technically expert but they know what they want in the way of beauty for their community, and they can be very vocal.

Women will get on the higher level you talked about earlier today, and when you get them excited, you have the battle half won.

Mr. WHYTE. Commissioner Gill has brought up a very important point. I see we also have here the man who has sparked the conservation commission movement in Massachusetts, Stuart De Bard.

STUART DE BARD. I might mention, in Massachusetts in eight years, 217 towns and cities have formed conservation commissions. They are appointive offices, usually seven people working without pay. They have the help of other town facilities. They get local loyalty and State expertise, and also matching funds on a 50-50 basis.

This has grown to such an extent that our little town of 15,000 paid \$10,000 a year out of its tax money for conservation purposes.

The town of Lexington appropriated \$230,000 this year for conservation to protect marshes. It is economically feasible for developers to buy marshland for \$3,000 and sell it for \$10,000 house lots—unless the town acts first.

The conservation commission is the mechanism we use successfully.

Also, I might say that these groups have meetings that work for the schools and all the other organizations in town.

FRITHJOF M. LUNDE. I am an architect. I would like to make a suggestion aimed at naturalist groups. By way of illustration, I would like to indicate that the largest city in the United States does not have in the offices of its planning commission anything in the way of illustrative material which catalogs, locates and qualifies the values of the natural resources that are left within its boundaries. It is up to the naturalist to tell the planning official where the resources are located.

Mrs. TRISTRAM COFFIN. We have two-thirds of a million women who are working in the Girl Scout movement and, of course, our aims are the same as yours.

We have a half million girls in the Girl Scouts of the U.S.A. and some of our main points in our training are to try to teach them conservation, a love of nature, and the out of doors.

We know what happens to a child when you take her outside for the first time and she recognizes a chickadee that she has only seen before on a piece of paper.

We also emphasize conservation. One of the biggest thrills of my life was taking out a mariner scout troop when we had only three

days to sail and the girls gave up one day, of their own free will, to do conservation work on the waterfront.

This is the kind of thing that organizations need to do. As we all go back to our communities, I hope every little Brownie will be an antilitterbug, and every Girl Scout will join in some activity to clean up the corner lot.

SAM RIKLIN. We have been attempting a beautification effort for a number of years in San Antonio and anyone who has visited our city will see we have met quite a few challenges and have accomplished a lot.

If we accomplish nothing else at this series of meetings, we should establish a clearinghouse of information to which people who have a problem can write. They need some organization here in Washington to whom they can say, here is what we face in San Antonio, Tex.—here is what we faced over here—can you tell of similar things in other parts of the country?

There is no place in Washington or anywhere else today where you can get definitive answers. I am telling you this after eight years in the fight. If we get nothing else but a clearinghouse, to tell us what has been done or can be done, I think we will be accomplishing a lot.

Mrs. ARTHUR G. FENSKE. The Wisconsin plan might well set a pattern for other States in developing comprehensive planning.

I would like to know if Dr. Lewis can give us some information as to the time it took to develop it and the financial aspects.

I would also like to know if there is any writeup or outline of the plan, and I would like to know from Dr. Crafts if this is the type of plan he needs to implement his land and water conservation.

Dr. LEWIS. The plan is still in preparation. The inventories have been completed.

Mr. CRAFTS. I don't think I can give you a definitive answer to your question, because I don't know enough about what is coming up.

The Wisconsin plan has not been submitted to us yet. I think it will be a significant contribution, but it is certainly not the total outdoor recreation plan which the statute requires.

I might say, without taking anything away from what has been done in Wisconsin, that there has been a great deal of mapping and surveying work of various sorts in this land of ours, at various levels

of government, for 50 years. I remember I worked in 1936 on a western range survey.

The new thing I see here is that Wisconsin has brought all these things together in a synthesis for the purpose of recreation and natural beauty. I think this is a new contribution.

DANA L. ABELL. I would like to just make a very brief suggestion to the members from Congress. I hope that the representatives here for Senator Jackson and Representative Aspinall will take the word back to them that they did miss a very excellent conference. I feel it has made a point that we have failed to grasp up to now, that there is a quality of wholeness to this environment that is not embodied in the thinking expressed in their remarks to the panel and expressed through the Federal programs. They are thinking in terms of land units and existing programs, and fail to appreciate the fact that landscape is a whole. Every one of these little projects must be part of a broad range of activities that will create a whole that can be a permanent part of our environment.

We must think in terms of the whole environment. I hope you convey this to our Representatives.

A DELEGATE. I am from Vermont and when landscape action programs are implemented, I suggest that you make provision for interstate action. It does us no good to drive up Route 5 in Vermont and view the blight and billboards on the New Hampshire side of the river, and I might say, this is vice versa. This goes for other parts of the country as well as up there.

LEONARD HALL. It does seem to me that through this conference we keep coming back to the fact that if we are going to succeed, it is going to be by starting from the local rather than the national level. I have been a little shocked in the last few months in talking throughout the Middle West. I have not found one county that knows that a National Association of Counties exists, and yet I know that this is one of the finest sources we have so far for information on projects and about ways to work on these projects. We do have to create more understanding at the local and county level.

We drive about 40,000 miles a year throughout the United States and nothing is clearer than that you cannot have poverty and natural beauty together. This is true at the urban level and true at the rural and the small community level. At the rural level there is

no doubt that the poverty program should be tied some way into this program on natural beauty.

You can find this in vast areas in northeast Oklahoma, where you drive for hours through an area of rural poverty, where there can be no natural beauty.

It is true in the vast Imperial Valley, where they harvest vegetable crops with sharecroppers and have no privies for them in the field or even in their living quarters.

I think Mr. McHarg was like a fine wind blowing through this whole conference. It is absolutely true that we must educate people into some understanding of their basic nature.

I have had the pleasure of talking in a great many schools and colleges throughout America, and it shocks me that so far ecology is only taught to those who go into the advanced fields of natural science. We teach no ecology in our high schools, and none in our primary and secondary schools. That is where ecology teaching should start.

I want to finish this up with one story about the Brownies. I live on a farm and a great many people come to it. One day two bus loads of Brownies came and their leader said, "Will you talk to them on littering, Mr. Hall?" I talked to them for about 10 minutes and the buses pulled away from the farm, and my wife and I spent an hour picking up after them.

A DELEGATE. I have a question for Mr. Crafts. Under Article 319, would it be possible to use a county area for aid on the water resources instead of waiting maybe 2½ or 3 years to develop a statewide program?

I think it could act as a pilot operation where certain counties might not have a direct relation to the State as a whole, and where it would not disrupt a statewide program.

Mr. CRAFTS. Are you talking about 319 in the housing program?

A DELEGATE. No, I am talking about the State aid program for development of the program we are talking about at this conference.

Mr. CRAFTS. Under the Land and Water Conservation Fund Act, moneys may not be made available directly to the county by the Federal Government.

The statute is very specific in this and requires the submission of a statewide plan, but it also, as you well know, provides that through the States, moneys may go through the counties and local govern-

ments for projects which fit within the purview of the statewide plan. We are not authorized under that statute and with those funds to bypass the State governments, if you want to use that term, and go directly to the county.

I might say that we have had very strong support from the counties, very close working relationships with the association of county officials and the mayors and the local groups in connection with this program. But it is necessary that counties and municipalities tie in through the State.

STATEMENTS SUBMITTED FOR THE RECORD

SAUL B. COHEN. Large tracts of Federally owned land, in the form of forts, camps, and bases that have fallen into disuse are being sold piecemeal or are being stockpiled without adequate regard for medium- and long-term alternative uses. I would like to recommend to the Recreation Advisory Council that it propose to the Department of Defense that the latter conduct an inventory and prepare a use-plan both for disposition, or temporary use, of such tracts. Whether we speak of long-abandoned island forts, or of recently closed camps and bases, we should look at these tracts as part of a total package, not as isolated pieces. Higher and better use of the land, when viewed from the pattern and scale of the totality, is apt to take a far different tack, than if viewed from the individual tract. The result can have a significant impact upon outdoor recreational and national beauty programs.

PATRICK HORSBRUGH. The all-embracing subject of the condition of the human environment implied by the phrase, natural beauty, so readily understood by those at the conference, requires to be given a clearer and more purposeful identity and political punch.

Even though these environmental issues transcend partisanship, there can be little doubt that the redeeming strategy, standards, and seemliness represent, inevitably, political problems and political procedure. But there exists no recognized lobby whereby ideas and policies can be processed and pressed as is the case with the lobbies maintained by the legal and medical associations. The stability of society rests upon three principal conditions: social order, personal hygiene, and physical conditions. Where is the advantage of the rule of law if the enviriun is disreputable? What is the value of medical standard if the enviriual health is obviously sickening?

While the law can be adjusted as circumstances require, while the medical sciences are ever advancing, the surface of the earth remains limited and subjected to increasing erosion as populations increase. Waste begets wastage and the effects of befoulment are always compounded. Ultimately, it is upon the state of the surface that human survival depends. Nothing less than the creation of an open lobby for the insistence of the improved environment in association with the legal and medical professions will achieve balanced and improved results. This is a matter for immediate public participation together with professional leadership, open to all who wish to care for and contribute to this aim, the organization being general in scope but similar to that of the specialized National Trust for Historic Preservation. In brief, a National Institute of Enviroculture is required.

Such proposals have been made publicly during the last 12 months in Minnesota, Texas, California, and North Carolina. A copy of my address given at the School of Design, North Carolina State, "A Proposal for a National Institute for Enviroculture" will be forwarded if necessary.

Since the problems of the human enviroculture are universal, it would be graceful if the White House Conference on Natural Beauty were to confirm its recognition of experiences available from outside the United States (following the invitation to the Director General, The Nature Conservancy, London).

The presence of visitors from the United Kingdom was very much appreciated. Each country has both labor and lessons for the service of the other, and seldom can such experiences be more easily shared or more gladly conveyed.

It might be fitting and fortuitous if this White House conference were to become the basis of yet another close association for technical and practical cooperation between the two countries for mutual benefit and worldwide demonstration. It would be highly advantageous if it were possible to appoint a British observer for each committee or organization that may emerge from the conference. The resulting exchange of experience and wisdom on means and methods and the wider publicity gained would justify the extension of what may be regarded as domestic issues beyond the borders of these United States.

Concern for natural beauty follows logically upon our mutual preoccupation with international progress and the pursuit of peace.

DONALD W. INSALL. Clear-headed analysis—this is what Dr. Lewis has been showing us from Wisconsin. This is exactly what at home we are now trying to apply to the problem of saving our British villages. First you need a knowledge of the facts, differentiating between the good and bad, between the sheep and the goats. Then—for we have a saying that “Everyone’s job is no one’s job”—every task must be allocated to someone with a real inspiration and incentive. Can we get together on this problem internationally, to study means and methods, and to share know-how? We all have much to learn and share. The skills are short; and the tasks are great, but there is so much at stake.

FRITHJOF M. LUNDE. A program of professional mapping of the remnants of the national environments remaining within the municipal boundaries of all major urban areas is clearly an urgent need.

By way of illustration of the need for such map-inventories it can be authoritatively stated that the Planning Commission of the City of New York, the largest city in the world, does not have in its possession, put forth by conservation or natural preservation groups (or individuals), any comprehensive (or single-interest) maps or descriptive data or document of any kind locating the remnants of the natural environments situated within the city limits or in the adjacent waters of New York City. Such areas as are host to the great flotillas of wintering scaup ducks, or nesting sites of terns, or are the last refuge of the spring beauty and jack-in-the-pulpit are not charted, described, or evaluated and therefore available, visually, quantitatively, and qualitatively to the planning and design professions who influence and shape city growth. Not until they become the object of a last-minute last-ditch fight or are lost to a competing city purpose—deserving or undeserving—do they become known.

It would take very little time for any naturalist, ecologist, ornithologist (or society of any of them) to put down on a map what he already knows in considerable detail about his home area and even less to determine whether such knowledge is already crystallized and available in map and/or synopsis form to his municipal administration, zoning board, planning director and, last but not least, park commissioner.

It is proposed therefore that organizations such as the American Ornithological Union, societies of ecologists, marine biologists, botanists, and geologists institute a program urging their affiliated geographic units to immediately undertake surveys in their urban areas

to insure that their special knowledge of the natural environment is made available to planning agencies (and similar governmental units including State and Federal agencies such as highway departments and the U.S. Army Corps of Engineers) in quickly assimilated map and digest form: (1) locating significant areas, (2) defining their limits, (3) describing the reasons for their designation, and (4) evaluating their relative importance to one another, noting particularly where they represent the full spectra of the flora and fauna of the region—on land or under water. (This would not be true for New York City but could be true elsewhere.)

Once charted, periodic reviews of the areas could be made and reported. The rate of loss and the yearly inroads could be seen by comparisons of year-to-year maps. Action programs could be fostered, but most importantly the planning bodies would be informed—and on notice, so to speak.

Casual sampling of planners and designers has indicated that these professionals would appreciate and can use this particular kind of data both for planning purposes—and for leverage value.

This proposal closely parallels a proposal called "Heritage Master-mapping—A Proposal for Community Self-Study of Its Physical Environment" which I have prepared and which is available to the interested reader.

MAX M. THARP. Housing for migrant workers is often the most unsightly and wretched of all living quarters in rural communities. Decent and attractive houses for migrant workers should be provided through a program designed to upgrade the status of these people. Federal assistance should be given in eliminating this blight on our rural landscapes.

JOHN TOWER. This comment is an extension of the expression by Dr. Edward Crafts of the need for recognizing the affirmative actions that have already been taken in various areas and by various sectors of our society in achieving some of the objectives this conference was called to discuss.

One thing that was missing from every discussion I have attended has been any recognition of the role our Nation's managed forests are playing today and can play in the future in attaining the objectives of the conference. I am thinking first, of course, of the role of the forest lands that are owned and managed for sustained yield production of successive timber crops by the wood-using industry. However, the same benefits are being received from the much larger

forest areas that are under long-term management by various agencies of the government at the Federal, State and local levels.

This contribution is being made not only in terms of the scenic values of the healthy, managed forests, but in terms of watershed management, in terms of providing a habitat for wildlife of a great variety of species and, increasingly, in terms of the role of multiple use forest management in providing high class opportunities for public outdoor recreation. I would remind the conference that almost 100 percent of the millions of forest acres owned and managed by private industry are open for public use of one kind or another.

It would seem to me appropriate that some recognition of the growing and important role of the Nation's managed forest land in providing natural beauty and recreational opportunities be included in the record of the White House Conference on Natural Beauty.

WILLIAM VOIGT, Jr. The statement presented in the name of Senator Jackson said all Federal authorizations in the natural resources field to date should be studied. The statement made in behalf of Representative Aspinall mentioned the word "compatibility." Director Crafts of the Bureau of Outdoor Recreation reminded that as of the date of this conference the concept of preserving natural beauty is still a White House idea; there is no fixed official policy. Congress and the States have been silent on the subject up to now.

The key words are "authorizations" and "compatibility." The lack of an official fixed policy is the key situation.

It is doubted that much can be done with regard to authorizations of past years that have entered or passed the construction stage. Some rectification may be feasible through amendment of the numerous laws providing the authorizations.

The hope for the future seems to lie in writing preservation of natural beauty provisions in authorization bills prepared by the present administration from this time forward, and by future administrations.

The first order of business should be to set standards, or to devise a technique for setting standards. Thereafter, the administration should make it a standard practice whenever bills are sent to the Hill that would authorize Federal projects affecting natural resources, to specify in the bills that the execution of the projects authorized shall be compatible with the standards set for the preservation of natural beauty, or in accordance with standards ap-

propriate to the specific project area that would be produced by the application of the standards-setting technique.

If such language should be employed at the Federal level, it would then give the supporters of the concept of natural beauty preservation, working at State level, a tool to use in seeking the establishment of firm policies on the subject there. No doubt, some of the advocates at State level would seek the assistance of the Council of State Governments in drafting uniform language that might be used by many general assemblies.

EDUCATION

10:15 a.m., Tuesday, May 25

The Chairman, Mr. BRANDWEIN. We are persuaded that since beauty can be appreciated, it can be taught. However, beauty must be experienced, and to relegate it to the classroom is not advantageous, for the child must be surrounded by it, as must adults. If education is experience in a search for meaning, it would seem that experiences in the school, as well as those in the community would sensitize children to the meaning of beauty.

We felt that what was not in the mind could not be in attitudes and in values, and for this reason we emphasized experience as essential in the appreciation of beauty.

Our recommendations, therefore, in this part of the report for which I am responsible concern themselves with two major items.

We considered, almost at the very beginning, the establishment of the President's Council on Natural Beauty as a focus for activities in conservation, redevelopment and maintenance of natural beauty in the Federal Government. We thought this Council should have representation from professional and lay groups (including education), should review practices in conservation and conservation education, and should make recommendations to the President.

The President's Council might, if it considers such action appropriate, stimulate the organization of Governors' Councils on Natural Beauty in the various States. (There is no desire to displace Councils now in existence having a similar purview or responsibility.)

Members of the Panel on Education were Paul F. Brandwein (chairman), Carl W. Buchheister, Loren Eiseley, John Gardner, Francis Keppel, Olga Madar, Mrs. Alexander Saunders, and Barbara Ward (Lady Jackson). Staff Associate was Dr. Chester Neudling. Due to illness, Mr. John Gardner was unable to participate.

We recommend, too, the establishment of panels to hold under constant review practices in the various areas of conservation, redevelopment and natural beauty (and conservation education) and to make recommendations to the Council, especially with the view of avoiding duplication of effort by government and lay groups.

We recommend next the establishment of a Study Committee on Conservation and Natural Beauty composed of leading scholars and educators in the field. The purpose of this committee should be to survey elementary, secondary, and collegiate curricula and make recommendations, where necessary, to the Office of Education, the National Science Foundation, and National Institutes of Health for innovation in curricular areas. The committee should also recommend the development of special studies and investigations in the various areas of the curriculum.

Perhaps the appointment of this committee might be initiated through activity of the U.S. Office of Education, by a foundation, or other interested groups.

We considered, too, the establishment of an interdepartmental Board of Review on Conservation Redevelopment, and Natural Beauty to be appointed for the purpose of coordinating publication activities of departments of government concerned with conservation redevelopment and maintenance of natural beauty.

Finally, we considered the need for incentive grants, or demonstration grants. We felt these should be made available (through appropriate agencies such as the Office of Education, National Institutes of Health, and the National Science Foundation, among others) to universities and institutions, acting in collaboration with local school systems, to encourage the development of school construction plans with adjoining natural areas, or with appropriate natural landscaping useful for study of natural environments (so-called outdoor education). This might be done under title III, sections 301, 303, Elementary and Secondary Education Act of 1965.

Schools need natural areas adjoining them (or in ready access) for study by children and for the significant, although subtle, "teaching" and "learning" afforded by such areas.

We discussed as well the establishment of a coordinating council for professional and semiprofessional groups (Audubon Society, National Wildlife Federation, and the like) to coordinate efforts and develop collaborative efforts. Such coordination might be

stimulated under title IV, section 401, of the Elementary and Secondary Education Act of 1965.

Miss WARD. The section about which my panel has asked me to speak is concerned with education in the rather broad sense; Dr. Eiseley will be concerned with education in its academic sense later. But I think we would all like to begin taking up once again the remarks of Secretary Celebrezze, which are, "If there is not a well-informed, vigorous, and articulate public opinion in this field then nothing is going to happen." One of our starting points is, I think, to recognize that both in my country, in Europe, and in the United States, the chief problem facing an environment of beauty is the fact that the uncontrolled forces at work now don't produce it. It really is as simple as that. We would not, in fact, have to bother with this problem if the forces naturally at work in our society were producing what we want. Instead these forces are producing again and again what we don't want.

It, therefore, does inevitably follow that citizen opinion in free societies is absolutely of the essence of the problem. We, therefore, have a number of quite specific proposals in this field, and a number of rather broader questions which apply to these proposals or stem from them.

The specific questions and the specific recommendations nearly all concern getting more information, because, the field is new. A great deal is known in a dispersed fashion, but not known consecutively and consistently. We therefore would like to see a number of task forces set up with specific responsibilities to get before the citizen what the possibilities and what the problems are.

For instance, we would like to propose that a task force consider what kind of community models can be laid before the citizens, of homes, of schools, of local areas; one might go further and say whole city sections.

If I may cite an example from England, the report on traffic in towns which was completed under the leadership of Professor Buchanan is a most brilliant attempt to put before the citizen what a more beautiful and a more convenient city layout would look like and what it would cost. We feel that in this field of community models, people only see what they see; they don't know what they could see if the situation had been altered by purpose and direction.

We would like to see a task force set up to consider what could be done here.

I would like to put in a small suggestion of my own, and that is: wherever government funds are available, as, for example, in the housing programs, we might ask government to consider its own responsibility in model building. Suppose 1 percent of the money in the housing programs could be set aside for a more beautiful environment, which would then provide a model, we might make big progress in this field.

We would also like to see a task force come together to discuss what could be done in the field of communications. It is so wide that there is no point in my trying to be specific, though I would like to throw in one suggestion of my own. Some of the most beautiful civic designs in Britain were put up in the high, old competitive days of the Middle Ages, when everybody tried to outbuild his neighbor in the matter of the local church. I think a highly competitive search for intercity beauty, sponsored by newspapers, taken up by the television, would arouse all those things that are best in free enterprise and harness them to beauty, and I would like to see Presidential awards for the best model. I think that we would all feel that this is one way in which the communications industry could be drawn into this field.

Next, we would like a task force to consider the services needed for the maintenance of beauty, because it is not good enough to put down a great big blob of beauty, and then have it, as Mr. Celebrezze pointed out, vandalized away within six months flat. This is a problem in any kind of new urban experiment. In Leeds in Britain, they had to replant the gardens in the newly housed areas five times over before little Johnny and little Johnny's mother had decided the trees were a good thing. Well, it took a bit of doing. This is part of the maintenance side.

We would like to see this task force consider the possible role of the Job Corps, the Boy Scouts, the Girl Scouts—any of these younger people who could be brought up with a sense of care of their environment.

If I may then put in a little comment of my own, I also feel that in an age of automation, the idea of creating "guardians of beauty" as a professional class or group is one we should consider seriously. Gardeners are notoriously good citizens and patient men, from Adam onwards. I would like to see the great profession of gardening extended to include civic and urban gardening. It would be one of the ways in which the problems of employment raised by automation could be creatively solved. It is very hard to automate an

azalea, and I think there are opportunities here which deserve much more imaginative thinking.

We would also like to see a task force consider what could be done in a more specific sense of popular education by the setting up of summer schools and institutes in cooperation with universities, to give the citizen a picture, not only of what could be done, but to understand the mechanics of what is happening now. I think this is a major concern of ours.

After all, in our cities, we are dealing with an enormous organic process. The thing I would like to come back to is this: How many of us as citizens understand the forces at work, the economic interest at stake, the place where these economic interests absolutely contradict each other, and above all, where the citizens want two or three things equally, not realizing that they contradict each other? An enlightenment of the mind by specific education would be enormously helpful.

Our last specific proposal is that we should have a task force to try and bring together the enormous amount of information that exists on natural beauty, on conservation, on the problems of maintaining a truly beautiful environment, either civic or rural. This should come together in libraries and in development and conservation centers, so that people who are interested could easily refer to it and get the kind of information they need to become informed citizens. Quite clearly, the amount of absolutely admirable work by voluntary societies, wildlife societies and by the Audubon Society, is not, in fact, as easily available to the interested citizens as it would be if there were these concentrations of information and material.

Those are the specific things that we would like to propose. But, in addition, we all feel that nothing is going to be done in this field unless the citizen has an understanding of the vast forces at work in our society, which have made the environment we have, an environment which is in many ways unsatisfactory, and therefore an environment which has to be changed if natural beauty is to be achieved. We don't think of natural beauty as a bit of lace on the edge of the corset—although you can do a lot with a corset. We think of the structure of society as a whole.

First of all, inevitably, universally, but rather more rapidly in some countries than others, we confront population growth. We are not dealing with a static problem. We are dealing with the most

dynamic problem that can be imagined. The population of America will be 225 million by the end of the century; we need reminding that as many buildings will go up in the next 40 years as in the whole of the past history of America.

We are in a situation which is, as it were, sliding from us as we try to deal with it, and unless this dimension or dynamism is put into our thinking, we are not going to think about it straight.

The second thing is that all over the world the people are moving into the cities and into the suburban areas around the city. Population growth in the world is 2 percent a year. Population growth in the median city is 4 percent a year. Population growth in the megalopolitan area is 8 percent a year.

People stream into Rio de Janeiro at the rate of 5,000 a week. Therefore we have to see the city itself as an explosion; it is where most of the people are going to live. This is the environment about which we have to think, if we are going to have beauty in the majority of the citizens' lives.

If you add to that—and I will be brief—the fact that we are trying to stuff both men and machines into the same area at an increasing speed, then again you have another dimension of the problem.

Then you have the whole question of our economic interests. Many of these economic interests, in fact, contradict each other, and also contradict the idea of a diversified neighborhood or the idea of access to natural beauty. We encounter this as a plain fact right through the world; it even comes up in socialist societies, in spite of all their supposed ability to control land use. The land on the fringe of the growing city is economically the most attractive thing to transfer quickly into the largest number of small houses in a grid pattern and, therefore, we get an extension of our suburbia by economic interests, unless we do something about it.

This is a worldwide problem, and perhaps the only excuse for me to come to speak as a foreigner (although it is hard to realize I am, but I am) is that the problems are coming up in exactly the same way all round the world. There are no good models. There is hardly a city you can see that isn't bursting out at the seams. There is hardly one where the beauty was not achieved by an archduke about three centuries ago, with nothing much done since.

This problem is a worldwide one, and if the United States, which is the wealthiest country in the world, which has more re-

sources at its disposal than the human race could barely dream of, which can add in one year to its national income the equivalent of the entire national income of the African continent, if the people of the United States can't do something about it, then heaven help the others.

I feel myself, if America did have an urban model, a balanced environment, and the practice of beauty, then, by God, we wouldn't hear so much about the cold war and neo-colonialism and the rest of it. We would be coming here to see how the good life is possible.

MR. EISELEY. There are a few things that I would like to say, and reminisce about, because in the end, I think you will find they have some pertinence to the discussion this morning. Secretary Celebrezze commented upon this problem of vandalism, and as he did so, I know just how hopeless he may have felt. I have seen some of the effects of vandalism in the cities. My mind went back into the thirties, I think about the time that President Johnson was having his first term in Congress, and at a time when a good fourth of the American population was circulating as a vast uneasy current on freight trains between the two oceans. I have been part of that vandalism. Let me tell you why, because it has something to do, in a sense, with that section of our population which is enormously important, enormously large, and which is neglected educationally and otherwise.

I can remember taking a freight train out of Sacramento in those years. I was going east as part of just this restless driftage of youth hunting jobs and somewhere, as we began that climb up into the high Sierras, we passed through a series of apple orchards, and we were hungry. I can still remember, as that enormous train rolled slowly up this great slope, men, including myself, jumping off that train, hastily knocking down fences, or plunging over them, into orchards, collecting apples in their hats, if they had any, or stuffing them in their shirts.

This was vandalism, in this Lost Eden. Somehow or other, there, in that environment, was the intrusion which has been commented about in literature, the great locomotive, the intrusion of the industrial society into the pastoral dream of America which has been held for many generations. Sure, we were vandals, and some of that vandalism extends beyond the matter of simply getting food by whatever means. It was vandalism coming from the frustrations that build up in the human heart and turn into aggression and bitterness.

These are things that have to be dealt with in the search for beauty, unpleasant things.

Consider Charles Sheeler's "American Landscape" in the Museum of Modern Art—a stark landscape with locomotives, and factories, and a dwarfed human figure. Critics have seen it as epitomizing modern America. There is also in the painting, however, a minuscule ladder, leading to nothing—or something—a symbol, perhaps, of what we are trying to do here.

As I sat and listened to distinguished speakers this morning—and I mean this as no criticism whatever—I had the feeling that lying about were the dispersed, broken rungs of a ladder. It is necessary for us as educators to somehow or other put into that ladder these broken and dispersed rungs in order to climb out of the situation in which we find ourselves.

One part of this tenuous ladder is something that I would like to emphasize for a moment from the educational and from the anthropological standpoint, because it is better if change can be effected by degrees through existing dreams and institutions, through something with which at least part of the society is already familiar. There exists in our society something which has survived in spite of the way we have exploited certain aspects of this continent over the past couple of hundred years. You will remember that in the beginning, in the writings of Jefferson, in men after him and in men before him, right down to yesterday, there has been a pastoral dream variously expressed which lingers on, the dream of America as the great good place, the new Eden. I can remember my father in his declining years—and I am sure there were many like him—saying with just a little money, we might be able to buy some cheap land in Arkansas. My father was not a farmer, but this was part of the American dream. If you failed somewhere, there was land, a place out there, and so we used to send occasionally for these catalogs for land we never could buy, and dream this dream which helped to keep us alive in a lot of slovenly places where we lived.

And now, in this America which Lady Jackson has spoken of as "exploding," as the world is exploding, this dream is at the point of vanishing, except as it is rephrased in the Great Society about which our President has spoken. It seems to me that this is part of our ladder, that we can preserve that earlier dream, which is part of our tradition, and translate it into modern means and ways,

even in the cities, through all the innumerable ways that education has to offer.

Part of education is the creation of great teachers, and there are never enough of them. I sat the other evening with a man who was drawing paleolithic pictures on a tablecloth at our dinner, a man to whom I owe a great deal, Dr. Paul Sears, who is one of those great teachers. I can remember when he was articulate on this subject long before many other people were and when he went to and fro and up and down the country, like Johnny Appleseed, dropping seeds of thought that have finally taken root among us.

Now I haven't got to the details of our recommendations. I see my time is almost up, but I would like, as one-time vandal, one-time stealer of apples in the Lost Eden, to say that teaching is enormously important and it is so particularly, way down in the grades.

I can remember when I first learned about fossils. It wasn't a beautiful spot. I found a fossil in a sandpile, but I took it to someone who explained to me what it was, and the memory has stayed with me these 50 years or more, and is a part of my feelings for that beauty, which is also time. We must remember, when we approach the enormous masses we have to educate, that time, to many of them, is limited by stress, that we live in different centuries although we are existing in the same spot, even in this room. The thoughts that we have and the necessities that drive us are different ones. Under stress conditions, there is not time to look at the future very frequently. This problem therefore is partly an economic problem of uplifting a great mass of depressed people and bringing into their lives something they have not had before, except as it has been an apple secured over a fence.

Questions and Discussion

JULIAN SMITH. I think our previous panel member made a real case here for what are now being considered as disadvantaged children. We are hearing something about some great opportunities for them, now, under our new education act.

I would like to ask Commissioner Keppel if he would feel it is in the spirit of this act to stimulate our school people to provide some outdoor classrooms and other means of deepening the perceptions of boys and girls who do not yet have the eyes to see or ears to hear what we think of as an American heritage of beauty. I was impressed yesterday with what Dr. Lindeman said, that beauty has to be in the human mind and in the human heart.

Mr. KEPPEL. I confess I had hoped that it might be an interesting experiment for an ex-academician and a present bureaucrat to listen instead of talk, but I will do my best.

The answer to your question, bluntly, is: Yes. The best influence on the local schools in the United States comes from the community, not by orders from Washington. To the extent that Washington plays a part in this, and it is not a major part, nor do I think it should be, we will vigorously support what you have said, under both titles I and III of the Elementary and Secondary Education Act of 1965.

RICHARD KLINCK. I would like to suggest that our war on poverty should more properly be a war on poverty of the soil. I would like to say that a presentation of beauty is needed for our elementary school children. We teach them much of conservation as fact and we teach too little of awareness of beauty as part of conservation. Even in teaching conservation as fact, concentration is on reclaimed and manmade beauty. Our youngsters have the impression that the United States would be better if we made it over.

I have heard Mission 66 defined as an approach to making the national parks more beautiful. I choose to believe they were most beautiful before the people came along.

As an example, I am privileged to use in my own school system, a laboratory school, during which time my youngsters are taken on four or five days of intensive outdoor study. This can be a practical approach throughout the United States.

I would like to see assistance given in taking groups of teachers into the outdoors and perhaps taking with them a person who fully understands the outdoors and the beauty that is there, to spend some time in the summer to help them to become aware of this.

FITZGERALD BEMISS. I believe the key to our problem is the thing Lady Jackson talked about, but I would like to pursue it a little more specifically. I hope you will press for the understanding of the economics of a metropolitan community. I know from my own political experience and everything else I can see, that a metropolitan area is a new phenomenon, and its economics are simply not understood. It is not that the city council or the board of supervisors of the adjoining county is stupid. It is that they just don't know the economics or the dynamic factors of metropolitan growth. What I would like to propose is that Lady Jackson be captured while she is here. Maybe Mrs. Johnson could take her

right over to the White House and put her to work developing a primer of metropolitan area economics, like the Wacker Manual for the plan of Chicago, written in 1920, which has had a huge influence on the whole shape of one of the world's great cities. Will you do that, please?

MISS WARD. I think the idea of being kidnapped is absolutely swell. I entirely agree that a simple citizen manual to the economic problems of the big megalopolitan areas is absolutely essential. I hope it will be considered as one of the specific suggestions coming out of this panel discussion. I hope it won't be considered that we are, in fact, in this way moving away from beauty. We are not. We are trying to show people the forces which they will have to master if decisions relating to beauty are going to be made.

I might just give one small example of this. In Britain we have had the concept of the greenbelt and the greenbelt did many fine things for the London area, but the trouble is that when it was devised, people thought of us as a nation with a static population and a city as a thing which stayed put.

Now, what has happened is that our city, like every city, has begun to explode, and what was a greenbelt is now a green halter. This means that it is becoming constantly encroached upon in ways that are incredibly unbeautiful, because it is no longer, as it were, in consonance with the dynamism of the situation.

I firmly believe that there is an answer, that it is an answer of the utmost importance for London, New York, for Pittsburgh, for Cleveland, for Moscow, wherever you like, because the problem is the same. We must expect dynamic growth, because we won't be able to stop it, but we must see that our parks grow with the dynamism. In other words, we must have not the greenbelt alone, but the wedge parks and the corridor parks, which give the citizens access to the greenbelt laterally and thus keep natural beauty within reach.

Having said that, I would say it involves the most difficult economic decision that can be made, because it means deciding for your metropolitan area who is not going to be able to build those little villas and make a very large profit. When you reach this decision, you are up against the point where economics and beauty just begin to grind against each other. The dilemma is one citizens have to know.

Mrs. BELLE SIMPSON. I am spending the late years of my life in helping to teach children to appreciate beauty, and I feel that there is no such thing as a bad child. I feel that any child who is taught to love nature and to come out into the open to see the birds and the bees, and the fish, and the other beauties of nature, I think once they are taught to admire these things, they cannot be bad.

I love children, I have six, seven grandchildren of my own. And have taken some of the most incorrigible children, at least the community in our small place considers them incorrigible children, I have taken them out to my country place, and I never saw finer children in my life.

With everyone of these children, the great fault was that they did not have the love and attention at home. Parents were too busy. The mothers were either working or careless. Once these children have a little love and affection, attention, they cannot go wrong. And I have great success with all of these children.

I do think that our teachers are not receiving the salaries that they should have.

Mr. BRANDWEIN. I would like Carl Buchheister to add to Mrs. Simpson's comments, or to expand them or to state his views because he has long worked in the area to which Mrs. Simpson has spoken. Possibly Mrs. Saunders would like to say something as well.

Mrs. SAUNDERS. I feel very strongly, and this is for the grassroots level, that courses right in the early years of school would be of utmost importance. This goes along with what the speaker has said.

People will say there isn't time for more courses. Teachers already have to teach so much. How can they have classes in conservation? But I feel there should be a crash program of conservation perhaps in the fifth grade, somewhere on that level.

Mr. BUCHHEISTER. We have heard this morning that the vast majority of the children of the United States live in urban areas, and we are very much concerned, because we here at this conference are concerned with teaching the children to have a feeling for natural beauty.

Well, it is axiomatic, I am sure, that everybody will agree that it is latent in every child that is born, if it is a normal child, to have an appreciation of natural beauty. But all too often and in almost all the cases of children in our country, at least in cases of vast number

of city children, this thing that we call natural beauty, of the natural world around us, passes them by. They become adults without ever having seen and appreciated, ever having felt a bit of natural beauty.

I happen to know from a very long experience with children who have not had any exposure to natural beauty, that when they are finally taken into it, it is almost overpowering. We know in every field of education that this appreciation we are talking about can be aroused, and can be developed by the great teachers that Loren Eiseley talks about, almost *ad infinitum*.

Now, going down to something that is practical. The vast majority of children in the United States live in urban situations. Since we know that the very finest teacher in the world about nature is nature itself, and that if we want to get this exposure and get this finest teaching in the world, then we must take the child to see nature. It is not enough to show a child a fish in an aquarium or a picture of a wild flower, or something else by using a slide or a motion picture; the essential thing, *life*, is absent in these attempts at natural beauty. If we want them to develop a feeling of natural beauty then we must take children where there is something of natural beauty. So, since we are talking about the urban areas now, I think, as Mrs. Saunders said, there should indeed be a crash program and that we should stop talking about why we should teach children the aspects of the environment in which natural beauty exists.

Since 1944 such a program has been demonstrated by the National Audubon Society. We think we have an answer in the educational Nature Center, an area set aside for just this purpose and staffed with trained teacher-naturalists. It is an outdoor laboratory to which school teachers can bring their classes; scout leaders, their troops; parents, their children.

Our Society now operates five model Audubon Centers. We realize, however, that through our own resources, we cannot possibly establish or operate enough of these "green islands for learning" to make a dent in the needs of this vast nation of nearly 200 million inhabitants. So we have a Nature Centers Division which acts as an extension arm of the Society. This Division is working throughout the nation to sell the concept, and to provide technical assistance to local groups and agencies that, with their own resources, are establishing their own "green islands for learning."

I recommend, therefore, establishing one or more Nature Centers in every sizable city. In addition to the Nature Centers, there is a

need for trained science teachers who can teach in the out-of-doors. If we are to utilize the thousands of Nature Centers or School Natural Areas that are needed to accomplish the vital educational task of which we are speaking, we shall need tens of thousands of teachers equipped to use them. We need teachers who are not only laboratory biologists or geologists, but who are also ecologists and interpretative naturalists.

With the combined efforts of knowledgeable teachers and interested citizens in the Nature Centers, children in urban environments will be able to obtain an understanding of the law and order—what we call ecology—so that they can make decisions about conservation and natural beauty and so that there will be developed in these human beings this feeling, this love for natural beauty, and the world of nature.

I have seen this happen. I have seen a child from the slums, a teenager that one would write off as a lost individual of the slums, a little teenaged girl, being brought into a camp, and suddenly plunged overnight—by bus, if you will—into one of the most extraordinarily beautiful situations. And there she stood looking over a vast expanse of blue waters, into a blue sky, and surrounded by trees, with wheeling birds all around her, and this insensitive teenager—so you would think—looked up and said, “Oh, my God, I never realized that there was this much beauty in all the world!”

This is because it is there. It is just a question of getting it to them.

OSCAR STONOROV. I would like to make these remarks in answer to Lady Jackson and Mr. Buchheister.

1. I am building in the great city of Philadelphia, a city which has become known for its planning activities and redevelopment, a school today for 1,200 children on one acre. No comment. This is not a singular case. I think it is still the rule of the game.

2. I remember on my large farm on which I raised a number of children, a Sunday luncheon in which two of our children brought their teachers and wanted to show them the maternity barn. There was a calf to be born that particular day. One of our children took the teachers out and as a result of that experience, both teachers, aged 28, fainted.

3. What Lady Jackson described is, of course, the heart of the problem, that the enormously profitable suburban land today knocks off the natural boundary or provides the natural boundary for the cul-

tural deprivation of the growing American proletariat. That is, without further comment, the heart of our problem, which I am afraid part of this conference did not wish to face, because in the entire conference we are not talking about the preservation of natural growth areas around the city, for example, such a concept as the milkshed. You see it is very, very rare for a city child (and I am talking as a man who has, with his wife, run a nursery school cooperatively, for the last 35 years in the country), it is very rare for even 1 percent of our schoolchildren to come face to face with a cow. The only cow that a couple of hundred thousand schoolchildren in Philadelphia see is that which we put into the zoo three or four years ago. So there is at least one cow in the metropolitan area of Philadelphia.

This is very, very sad.

4. The last remark is about the great teacher. I would recommend to Mr. Keppel the reprinting of probably the most important document which could be presented to this great White House conference, and that is one of the most important works of Frank Lloyd Wright, *Broad Acre City*, which talks about the trinity of industrial life, living, and building. That is not the villas, not the Monticellos on one-half acre of land, but architecturizing in the spirit of the President's message, the city from coast to coast—that is, the country from coast to coast.

Miss MADAR. It is true that we need to define more specifically the recommendations needed to do a more effective job of reaching that portion of the city which needs it most, and to work with the people who have been deprived for so long.

There are certain segments of our society who, indeed, because of discriminatory patterns have not had the opportunity to see a natural area, or to live within any reasonable distance of a natural area.

I think we have now a special responsibility. We can begin to reach those people who are starved for the very kind of thing that we talk about, that we love, and that we want to see more of.

Now, specifically, what can we do? I would hope that there would be programs developed under the Economic Opportunity Act, under the education acts, which have been passed or are in the process of enactment, so that we can get in and work with people in their own communities, in the inner city. Indeed, we do need to have manuals which explain the economics of the situation, so that the people who are in responsible positions can be helped to

see the wisdom of taking effective action to protect our natural resources.

We have to find a medium of communication between, for instance, the UAW and the garden clubs in this primary area where we share common concerns. We have to find better working relationships with the park and the recreational people who are in our urban areas, who deal with nonwork and nonschool programs. We keep talking about the increased leisure yet we have known for many years that we have not provided purposeful activity for our teenagers and for our young people who have left school. Their help can be enlisted in our search for beauty.

I think we ought to use the two major political forces in our society to do an educational job. An outstanding citizen of Michigan to the contrary, I believe there is a great deal of citizen involvement in our political parties, and these two organizations can help citizens to understand the economics of the problem and help effectuate better coordination among local agencies and State agencies, so that boards of education, who rob from park and recreation departments and nature study areas to build schools, will work together to prevent exploitation of our resources and to beautify our cities and countryside.

Mrs. J. M. P. WRIGHT. We have had remarkable success with our children in gaining a response to the beauty of the town and the architecture, but what worries us is that, when these children grow up and when their children grow up, there will be nothing left for anyone to appreciate, because of the very things that your last panelist mentioned. We have no means of educating the financial structure of our community to the economic benefits of beauty. There is a wall between us. Our communications do not work. We do not have the techniques nor the words to make them understand what we are trying to do. And this is where we need help the most.

It seems to us that it can start on a political basis. We can see the connection between political power and land development and land investment, and we have to find some means of showing these people who have our cities in their control that the city will not be economically bereft if a little beauty is maintained for future generations.

I would like to expand on these remarks and put them in the record.

Mr. BRANDWEIN. I think some of your questions would have been answered if Mr. Eiseley had had the opportunity—and I plead guilty to cutting him off—if he had had the opportunity to make specific recommendations, and I will ask him to do so now, and then return to the floor.

Mr. EISELEY. I would just like to add, before making this comment about our specific recommendations, that a great deal has been made pro and con at the major meeting about whether this is a problem for the local citizenry, or whether it is a problem which involves the highest levels of government. I would like to say at this point, again in terms of major change in this society, that both are important. I think we owe a great debt to President and Mrs. Johnson for expressing their deep interest in this subject, because of the position which they occupy; the fact is that this encourages local action in a way that could not be secured otherwise.

Now, in terms of our specific recommendations, those I was asked to mention, we have suggested the establishment of a panel of research in natural beauty, whose purpose would be to encourage and implement study and research programs in problems relating to natural beauty.

And I would interpret that in the very broad sense. It is not a matter just of civics courses. It is not a matter of specific courses, even within the domain of ecology, however much those may be needed.

I would say that in the domain of English literature itself, there are ways in which our major purpose can be stimulated, because we are the inheritors of an Anglo-Saxon tradition of writing in the field of literature upon nature in a way that is not evident in all cultures. That great tradition should be continued.

Again, we suggest the development of a major poll of public opinion in conservation, with the idea of reporting on conflicting principles and practices as well as areas where there may be agreement. These polls might be developed at suitable intervals in order to find out if changes are going on as a result of our activities in public opinion, and in regard to practice.

Now, we had intimation yesterday in some of the panels that very little public interest was being manifested in certain quarters. All right, it would be interesting to know, after the nationwide publicity

which has emerged out of this conference, how many more people are getting interested in this subject and conscious of it.

If there is a manifestation of change here, it would suggest something about the wisdom of these conferences.

Again, we have suggested the establishment of an organization of traveling teachers, lectureships, to disseminate methods and devices toward increasing the competence of teachers in the requirements of the newer specialization concerned with conservation and redevelopment of natural beauty. These programs as you are doubtless aware, have been already developed, in certain aspects of science through the National Science Foundation, and might well come perhaps under the agency of the National Foundation for the Arts and Humanities, which is being projected.

We have suggested training and nature centers in affiliation with universities where teachers and lay groups may discuss and plan programs for the dissemination of information concerning conservation and natural beauty. And bear in mind; although we recognize that this of itself is not enough, still these special institutes, these summer training programs, which have been used successfully in the other sciences would hopefully increase the number of skilled people who could then, in their turn, go out and teach others and involve themselves with local problems.

Title IV of the National Defense Education Act may apply to this proposal, as might also the Vocational Education Act of 1963.

With regard to certain other aspects which fall under investigation and research, we recommend the wide establishment of the community extension programs, within the various States and regions of the country, so that the resources of universities may be focused on the community as they have long been concerned with rural areas. I refer particularly to the land-grant colleges, but I think it is something in which the better universities, private colleges, and so on, irrespective of whether they are part of a land-grant system, might well wish to participate. It might well be that certain activities could be taken up with the National Association of Secondary School Principals.

These are only beginnings, ladies and gentlemen, but we have to begin somewhere. I would merely reiterate that matter of the broken ladder I spoke about earlier. And one more statement, if I may, because I think literature in this sense, because it is a part of beauty, has something to do with all this. Bear in mind that William

Blake, that man who saw the galaxy as "Tiger, Tiger, burning bright/ In the forest, of the night," spoke once of the fact that the literary person sees with a double vision. He sees the fact and the vast shadow which lies behind the fact, in this instance the Great Society.

HAROLD WOLOZIN. I have an invitation for Mr. Keppel. I happen to be on the Board of the Burgundy Farm County Day School. We have a bird sanctuary, and he might like to come out and see what we have done, as an example of what has been discussed here.

We are concerned with the role of volunteers in the community. Miss Madar, I think, ticked off the need for getting groups that either are volunteer groups or youth volunteers to work together. Therefore, I have a recommendation, and that is that you set up a panel on the use and organization and utilization of volunteers.

Mrs. PAUL GALLAGHER. The objective of The Friends of the Parks is to save parks from encroachment, and our enemy is the highway engineer. As we discovered, the highway engineer is the most delightful of men really, and full of courtesy, but he cannot hear what we say. He cannot hear us because there is nothing in his education or training relative to what we are talking about. He is absolutely unconscious of any lack, he is quite content with his education, which, of course, is good.

If this panel has any influence with scientific schools, I would like you to urge them to add, before the young men are quite set in their mold, a course on philosophy and aesthetics. They should also read the English and American poets which Mr. Eiseley just before me has recommended also.

I think it would bridge the gap between what they are not sensitive to and what they should be sensitive to.

Miss WARD. Among the recommendations that we hope to make is that interested universities might consider setting up graduate schools of environmental studies. The point that our speaker made is one that comes up again and again, which is that the economist and the sewage expert and the road engineer and the architect and the landscape gardener, don't really meet. If there were some centers in the country where these people of different professional expertise could meet to learn the organic and the ecological sense of their work, we think this would be one of the big breakthroughs

in education. We do intend to make a specific recommendation of this kind.

CHRISTOPHER TUNNARD. I teach beauty to social scientists and find them very receptive.

I don't want to make our task more difficult, but there is a problem that has not yet come up in this session. In the words of the old saw, one man's meat is another man's poison. When the task force goes out on its tour of the country and holds seminars, as Mr. Eiseley has suggested, it is going to find very different opinions of what is beautiful and what is not. Citizens of Bronxville, the upper income group, are probably going to have a very different idea of beauty than the deprived citizens of Bedford-Stuyvesant in Brooklyn.

I have a suggestion and a question. The suggestion is that I think this problem should be met head on. I think it may be fairly easy to convince people that there should be natural beauty in the environment of the schools. But when it comes to manmade beauty, architecture, and the artificial environment, I think this is where the problem will arise. I suggest that it be met head on by calling the first session of the seminar, "Who Says It's Beautiful?" and seeing what kind of a response arises. And the second is the question: How does the panel respond to this problem?

Mr. BRANDWEIN. Is there anyone who would wish to speak to this question of what is beautiful? Mr. Keppel?

Mr. KEPPEL. Frankly, no. I am a former Harvard dean and I can assure you that I will pay the utmost attention to the recommendations and suggestions of a gentleman from Yale, who tries to teach beauty to those students.

Mr. EISELEY. It is interesting that the panel itself got into some quite lengthy discussions on this subject of what is beauty. It is something that one can find in many ways in the human heart and there are, of course, many attitudes toward it. Naturally, some will be more sophisticated than others.

I commented a moment ago about the fact that, through a series of circumstances, I found something in a sandpile which was beautiful, and I am not a person who is going to lay down any restrictions about where beauty is to be found. It can be found everywhere. It can be found in old ruins. I have stood on the sites of ancient cities and thought, as spring came back over

them, how beautiful is the return of nature. I think, if we are going to teach people, we have to be careful that we are not dogmatic, that we are not czars, but that we try to grope toward that intangible thing, that quicksilver thing, which lies somewhere in the human heart.

LAWRENCE HALPRIN. I say this with some diffidence, but I want to follow up a little bit on what Mr. Tunnard said. I have written it out.

I note throughout the conference the continuing dichotomy between the feeling that beauty must be equated with natural beauty and that manmade events are inherently ugly. This comes up in all the panels: trees versus masonry and green versus concrete. But some of the greatest efforts of the spirit of man, after all, are cities, the fountains of Bernini, the sculptures of Michaelangelo, and the Galleria in Milan. After all, everything that man does is natural, because he is a part of nature. And is not our charge that, in an increasingly urbanized society, that Lady Jackson referred to, we tackle the problem on this level of artistry, as well as nature, on the level of sculpture as well as trees, and great theater as well as flowers?

Mr. BRANDWEIN. I think it would be my duty to say that, if we have expressed this view, Mr. Halprin, we have not expressed ourselves fully. We think man is natural and his artifacts are often as beautiful as those of nature. We mean to say he should not desecrate what is already beautiful and he ought to develop standards of beauty and beautify that which is not beautiful; we realize this is a very difficult thing to attain, but we have made a beginning.

MATTHEW BRENNAN. I want to suggest that we return to reality for just a moment. We must accept the fact that after 30 or 35 years of trying to educate adults in America, through various programs, we have been unsuccessful. There is only one place where we can get to all of the people in America, and that is in the elementary school. Here the children are only ten years from becoming politicians, legislators, roadbuilders, engineers, and so on. If we can make some of these children understand man's place in the environment, in ten years we will have the educated public that we strive for. I would suggest that we enlist the aid of the most famous former teacher, President Johnson, to suggest to all the teachers of America that they really hold the key to this whole problem. Even in the enlightened

schools, those which have outdoor education programs, children (and I have asked them in many States) do not realize that some of our national monuments are being threatened, do not know anything about sanctuaries for wildlife, and so on. How can we expect the others to know?

So I suggest that we think a little bit about elementary curriculum and how we can get the work done there, where I think it is most important.

MAURICE BARBASH. I would like to address my remarks to the specific problem of depicting natural beauty to the urban child. We could all do this tomorrow morning, simply. Just last week, in our own Bay Shore schools on a test basis, we organized a group of junior high school students and sent them out to the not yet formally established Fire Island Natural Seashore. We are having established a whole group of new national conservation-recreational facilities in the East, where they have been most lacking. Formerly, a trip to a natural facility of this type, involved a trip to the Yellowstone of the West.

Well, I watched these kids come back. They were guided around the seashore by the local ranger, and they came back with a whole bunch of feathers, rocks and everything they could pick up over there, and they had the most fantastic time of their lives, and many of them for the first time saw what we are trying to describe here as natural beauty. I think we could use these new facilities being established in our country to advantage. We don't overcrowd them when we visit them during the school day. Here is a living classroom for experience in the areas of natural beauty for our children.

Mr. Ronald Lee, who is sitting here, is a regional director for national parks. He would agree there are vast opportunities to be tapped here on a limited and practical basis.

E. GENEVIEVE GILLETTE. I have in my hand here a little manual that sells for \$2.40 in our bookstore. It is called *Integrating Conservation and Out-of-Door Education Into the Curriculum of the Public Schools*. We do this in our schools now. We have about 11,000 children a year, who are taken into the out-of-doors, the smaller children, of course, studying the more elementary things. About the sixth grade, they begin to study the resources and what use is made of them.

In the 11th and 12th grade, these children begin to understand the conflicts that happen when these resources are misused. They go home, and educate their parents, so at our city council meetings in Ann Arbor, we have 150 citizens who protest violently until 12 o'clock at night, when they try to do something about one of our parks that we don't want disturbed.

I would like to put this book in the record, and there is in it a short statement by the man who has been the head of this work in public schools. I thought this perhaps would help a great many of you.

STATEMENTS SUBMITTED FOR THE RECORD

WALTER S. BOARDMAN. With few exceptions, the teacher training institutions of the United States do not include basic conservation information or man's relation to environment in their curricula. We cannot expect youth to be inspired to love nature by teachers whose own understanding of environmental relationships is limited to incidental experiences and reading. Furthermore, the school administrators and supervisors, generally speaking, have neither stopped to think about their responsibilities in this field nor have they encouraged school activities conducive to such understanding.

It is recommended that the following steps be taken to initiate an effective beginning in school education for natural beauty:

(1) The U.S. Office of Education shall engage one competent authority in the field of conservation, to coordinate the efforts of those teachers and schools concerned but needing leadership.

(2) A library of teaching materials shall be established either in connection with the U.S. Office of Education or at a university willing to devote space and funds to this service.

(3) The Association of Colleges of Teacher Education shall be asked to undertake a study of needs in conservation and natural beauty as a part of their curricula.

(4) The National Education Association shall be urged to provide leadership in the efforts of those teachers who seek to do a better job in the guidance of youth toward a better understanding of nature and of citizen responsibility for the total environment upon which man's health and happiness depend.

ARNOLD W. BOLLE. I suggest that a task force be established to examine the problem of the education of professional resource man-

agers and planners, with whom lies and will lie the major responsibility for making the decisions that will or will not accomplish the natural beauty we all want. Such a task force should first analyze what effect this recent emphasis on natural beauty will have on our action programs. It will then have to determine how our educational programs can be amended and reorganized to meet the new problem.

It became obvious at the conference that these managers, engineers, and other professionals in natural resource fields are in many cases the deterrent in affirming natural beauty. In some cases they are the enemy. On the other hand, it also became obvious that natural beauty is not going to be protected and enhanced until these same people—in public agencies at all levels, in private industries and consulting offices, and in all other positions where they are charged with resource-use decisions—have an understanding and appreciation of the effects of their decisions on natural beauty, and act accordingly.

Some of these people do have some understanding of the situation, and a considerable number are now in agencies responsible for protecting, managing, and developing landscape for public enjoyment, such as in national, state, and local parks, national and state forests, game preserves, water projects, and Indian reservations. But even in their case, reorientation will be necessary.

In effect, we have now placed a greater value on natural beauty than ever before. This means that we have changed the relative importance of other values and therefore the policies and programs—or implementation of values—of public and private organizations must be reexamined in a new context.

It seems to me that the first conference of such a task force should be devoted to the decision-making process in issues that affect natural beauty. It is here where all aspects of the problem would be drawn together. First, the ecology of the physical area should be studied in order to learn and appreciate the natural forces involved, the effects of possible action and use, and the limitations imposed by the natural environment. Second, the group should examine the social-political-economic factors at work, including the institutional areas (laws, regulations, customs, attitudes) that might restrict attainment of the desired goal of natural beauty, either by their presence or their absence. Finally, an optimum decision should evolve from a consideration of possible alternative actions and their consequences.

Education has too often lagged behind our needs in regard to con-

cepts and processes of resource planning. Some of us may want to move ahead; others may not. But I think it vitally important that the universities and colleges share leadership in this dynamic situation. To do this, they must recognize the critical nature of the problem and take responsibility for educating students and reeducating professionals within the framework of our newly declared aims.

JULIA J. BRODERICK. Two problems have emerged from the discussions of open space and natural beauty in the metropolitan areas and their fringes. The first is how we preserve and protect those areas of particular character that mean beauty to us and the second is what we do with the areas that we have acquired as open space.

It is not enough simply to procure some sort of fee or right to significant land areas. Unless the minority, now convinced of the need to assure natural beauty in our landscape, can educate the majority as to the constant and continuing efforts involved, the forces that have produced the present confusion will continue their inexorable march.

Barbara Ward suggests that we need models of open space areas to illustrate the choices available and to demonstrate their value. I question whether we are capable of building such models.

Frederick Law Olmsted had a philosophy of open space in metropolitan areas that was consistent with the mores and philosophies of his society. It was a romantic notion that sought to bring pieces of the country's wilderness into the center of the city: hence the Fenway and Wilderness of Franklin Park in Boston and Central Park in New York. It was a false wilderness to be sure, but masterfully built and it created a desire for similar parks and open spaces in other cities throughout the country. But his philosophy does not meet the needs of our contemporary society.

We have not shown the ability to design anything much larger than a tot lot which reflects the differences between our way of life and that of Olmsted. The well-designed tot lots of today are very different from those that Joseph Lee fought for at the turn of the century. Yet they meet the same needs that he saw in a way more suitable for a child of the 1960's.

The models that Barbara Ward seeks were never more desperately needed. Substantial grants must be made available to finance experiments in modern open space design. And our landscape architects must spend less time worrying about regional problems (where planners are becoming more and more capable) and more time

developing the exciting designs that will make the public delight in and pay for natural beauty.

Think of a city with 300 acres of woodland within 20 minutes of downtown, once a private estate and now available for a park. The city or park commission is persuaded to purchase it and secures a Federal grant for design and development. The public waits. Dreary picnic tables? Walks for ladies with parasols? Hot dusty playfields on a bulldozed plain?

We must have a new philosophy of developed open space that catches the imagination of the public. Only this will provide the impetus to reverse the march of the economic forces on the urban fringe, only this will give true form and meaning to metropolitan areas, only this will preserve the American dream that lies behind every panel statement in this conference.

SHELDON COLEMAN. All people, and especially young people, need to develop a feeling of reverence and respect for the living earth and a sense of stewardship for the natural resources of their country. To accomplish this objective every boy and girl in America should be given an opportunity to have a meaningful experience with the outdoors so that they can understand from personal contact the value of clean water, green forests, abundant wild life, and productive soils. This can only be done in a universal manner through the schools, where outdoor education is taught as a regular part of the curriculum. This is the only way we can reach every boy and girl in America with the true story of conservation.

This panel should request the President to have a study made that would point the way for specific action programs that would implement the objective of giving every boy and girl in this country a meaningful experience with the outdoors which would be a step forward in helping our problems of juvenile delinquency, physical fitness, and mental health. Such a task force could have a profound effect.

Comment.—The most practical means by which the urban child can reach nature is the school bus.

LYLE E. CRAINE. In the panel on education, emphasis was put upon nature education in the public schools. The premise seems to be that in ten years we will develop an electorate appreciative of natural beauty. Granted that a universal appreciation of nature is a necessary condition to action, it is doubtful that it is sufficient. There are fundamental issues (social and economic), which we must understand and face. A most challenging task to education is to

identify, understand and learn how to manage what Barbara Ward calls the untrained forces which don't produce what we want.

Even with the best of nature appreciation, if our public policies have built into them (albeit unintentionally), incentives which do not encourage taking aesthetics into consideration by the multitude of decisionmakers involved, we will but scratch the surface. Research is needed to isolate negative incentives and innovate new policies that will provide positive incentives. When these issues are understood, these become the objectives to which our educational efforts must be directed.

Should not this conference recommend the establishment of a task force to study the problem from this point of view and perhaps identify some of the major points at which the incentives built into our social, economic, and political systems need adjustments. Such identification would serve to mark out specific areas for more intensive research and education and get us beyond the limitation of slogan thinking.

CHARLES A. DAMBACH. There appears to be near unanimous agreement that education, particularly outdoor education, is an essential component of a lasting national effort to improve the quality of the landscape and to, thereby, enhance natural beauty. There is also general agreement that this can best be done in the schools by teachers with the necessary ecological understanding and motivation.

The importance of special institutes for upgrading teaching competence in the sciences has long been recognized and well supported through National Science Foundation grants. More recently, Federal support has been provided for teacher-training institutes in stipulated social sciences and the humanities at elementary and secondary levels. Conservation is not among the stipulated areas.

Although these programs have had a salutary effect on the improvement of teaching generally, they have, I believe, endangered the very existence of the few inservice conservation education programs existing in America. Teachers faced with the alternative of paying fees and living costs to attend a conservation workshop or receiving a stipend for attending a fee-free institute in their subject matter field are strongly inclined to elect the latter course. A drastic drop in enrollment at summer conservation workshops for teachers has developed since Federal support for institutes was initiated.

There is little doubt that present Federal programs, which omit

conservation as a specified subject area eligible for support, have, thus, contributed to the downfall of the educational effort offering the greatest hope for achieving national natural beauty through education.

This is the antithesis of the kind of conservation effort advocated by panelists and delegates to this session of the conference. Immediate steps should be taken to insure the eligibility of conservation education institutes, workshops, and other training programs for Federal support comparable to that available in specified areas under National Science Foundation and U.S. Office of Education administered programs. Although conservation apparently can be included in programs under geography or certain natural science titles currently receiving support, it is in such programs largely incidental or subservient to the central interest. Conservation should be recognized as a subject matter area in these programs, and colleges and universities throughout the land should be encouraged to develop appropriate teacher training programs which give major attention to this subject.

CHARLES A. DETURK. Citizen interest is well and good; it is the motivating source of better education in the field of beauty, amenities, or quality of designs. Until, however, the universities teach humanities to education majors, engineering majors, and architects and landscape architects, the job cannot be done. Indeed, there is not time allowed for many of these young people to study literature, history, psychology and other subjects which tend toward the "why" of the project rather than the "how." Tragically, most professional courses tend to forbid or deprive our eager students of the privileges of Shakespeare or Plato or Beard or Gibbon in favor of "the new math." As has been said of parks, education is also—and more so—for people.

Dr. LOIS V. EDINGER. What is the role of education in conservation and preservation of natural beauty? Do we need a nation in which everyone is an expert on conservation, landscape, architecture, city planning, air pollution control, and so on? Not at all.

What is needed is a nation in which every citizen appreciates his heritage, respects property rights and understands that choices rarely are between absolute good and absolute bad (even in conservation and preservation of beauty), but between conflicting goods which necessitate a value judgment on his part. Hence, education must place primary and central emphasis upon developing an individual's

thought processes so that he may continue to learn and to utilize the tools of analysis. Attention must be given to developing mental flexibility; skills for thinking logically, analytically and creatively; and receptiveness to new ideas and emotional maturity. Attention to these skills must come at all levels, kindergarten through the graduate school, and their development should permeate the entire curriculum.

It would be an unrealistic approach to pass laws or hand down directives from any source forcing into the curriculum a new course of study in this area.

It is possible to create an awareness of problems existing in regard to this issue and of need for solutions; it is possible to inform and prepare teachers to deal with the issue, but approaches and programs must vary. Flexibility must be encouraged.

The school is an agency of society and the role and program of the school respond to society's demands. Over the past 75 years, our society has heaped upon the schools of this Nation a heroic assignment. We have taken into our school system a greater proportion of our youngsters and kept more of them in the system longer than any other nation. During this same time we have been pressed to include in the curriculum an incredible variety of subjects and to take over more and more of the functions of the home.

It is not necessary now to add yet another subject when what is to be desired may be achieved (indeed, is being achieved in many schools), through the present curriculum. Some schools may add a subject or modify focus in present subjects. Many elementary schools all over the country are engaged in outdoor education programs as a part of their regular study. Courses in civics, history, and geography develop understanding and appreciation for natural resources and heritage. Courses in art and humanities give emphasis to beauty.

Two cautions should be observed:

1. Generalizations about broad groups of children are harmful to understanding. While it is true that educators face a great challenge in this area with culturally deprived children, it is also true that often there is great receptiveness. Contrast may be an effective teaching tool. The necessity to develop respect for property and the desire to conserve resources as well as the development of an appreciation for beauty is not confined to any one group in society.

2. Schools are not the sole means by which a citizen is educated.

While a school may legitimately be held responsible for the formal education of an individual, it cannot be held responsible for his total education. The individual is the product of his total environment and many a lesson taught in school has been forgotten in the light of actual practice in the home and community.

ROBERT H. EYRE. How can you inculcate aesthetic attitude in the citizenry? Three measures need emphasis: (1) Education; (2) increasing use of the police power; and (3) financial incentives.

An enlightened public is a prerequisite for beautification. Far greater attention needs to be given to the problem in secondary schools. Our mass media of communication needs an organized effort. Our public servants need refresher courses. Foundations and civic groups should be stimulated. The public generally must be inspired to act in unison in every neighborhood, business district, and industrial complex.

New regulatory processes must be developed and tested for constitutionality in the courts. Broadening the police power concept to include aesthetic considerations within the health, safety, and welfare framework of judicial precedence will come slowly, unless public indignation motivates a liberalization of the attitudes in the courts of the land. Research, testing, and contributions to the technical literature must pave the way for beautification progress in these fields.

Economic incentives may be appropriate in the form of subsidies or credit in providing the benefit of an underwriting advantage to FHA loans, small business loans, or industrial stimulation programs. It is suggested that the interest rate be modified by the Federal assistance programs to favor beautified property because of the better risk. If it makes sense to give tax depreciation allowances as investment property becomes obsolescent, it can be argued that there is an offsetting community interest sufficient to justify a credit in mortgaging and taxing policies to encourage a beautiful environment. But there can be no justification for giving credit or tax advantage that favors continuance of slums.

Depreciation allowance on Federal income taxes could be allowed the homeowner for beautification improvements. State and local taxing bodies, should be encouraged not to penalize the owner who beautifies his property.

THOMAS JEAN. The potential contribution of adult education in the campaign to restore, preserve, and create beauty in America should not be overlooked. During the open discussion on educa-

tion, the emphasis was on teaching the youth and on awakening public awareness. Both of these are important contributions. However, both will fall short of their goal without the aid of adult education. The child who becomes enlightened but returns to a blighted home environment is not likely to succeed in his effort at beautification. The adult who is made aware of the problems of blight but is not given the know-how to solve these problems is not likely to accomplish a great deal.

Adult education classes for the homeowner who wants to beautify his home are needed. For instance, in Flint, Mich., we have classes in landscaping and horticulture, geared to the do-it-yourself addict. He can also take classes in such subjects as minor home repair and garage building. In the last analysis the battle to beautify America will be won or lost by the amount of pride which the individual property owner takes in his home or business.

Factories, schools, hospitals, and stores can be encouraged to beautify their buildings and grounds by offering classes for their personnel. We have found that employers are anxious to improve their public image and that employees are eager to upgrade themselves. Thus, a class called landscape aid, based on a bulletin published by the Department of Health, Education, and Welfare, was most successful. Many excellent publications are available to school systems wishing to establish Adult Education Classes.

The impact which adult education can have upon the effort to beautify America is beyond comprehension. The process is one which enriches the life of pupil and teacher alike and one which best expresses true community involvement.

This list of typical publications is meant to simply indicate the type of material which is available: Breen, Harold—Landscape Paving for Home Grounds, Michigan State University, Cooperative Extension Service, East Lansing, Circular E-6; Cathey, Henry M.—Growing Flowering Annuals, U.S. Department of Agriculture. Home and Garden Bulletin 91; Cox, Joseph T.—Landscape Planning for Rural Homes, Michigan State University, Cooperative Extension Service, Circular E-1; Glick, D. Newton—Landscape Planning for Residential Properties, Michigan State University Cooperative Extension Service, Circular E-2, 1960; Nelson, William R., Jr.—Landscaping Your Home, University of Illinois, Cooperative Extension Service, Circular 858, 1963; Watson, Donald P.—Beautiful Home Grounds, Michigan State University, Cooperative Extension Service, Bulletin 425, 1964; and the Landscape Aids, U.S. Depart-

ment of Health, Education, and Welfare, Office of Education, OE-87010.

RICHARD E. KLINCK. To preserve beauty and maintain its values boys and girls must understand that beauty. With their understanding the beauty is not endangered. When the understanding is not present, as is generally the case, only a valid and extended program of properly designed education in the elementary grades can develop attitudes and understandings that are both meaningful and lasting.

As a sixth grade teacher I am too often aware that students I contact are so overcome by the intricacies of the fast-developing technology that surrounds us that they tend to be only aware of its immediate satisfactions and unaware of the beauty that exists beyond that technological shell—the beauty that gives grace and meaning to human existence. Therefore they become adults who have little awareness of their natural world and care to do little to affect it. They have been so numbed they do not react to the stimulus of beauty, for they are surrounded by its lack.

If we are to have a war on poverty in this Nation it must be most effectively a war on poverty of the soul—a poverty made evident by the increasing demands on the resources of our earth, especially its beauties, with too little concern for where this demand leads. This poverty of the soul can be overcome, in my opinion, in the following ways:

1. Continue to develop a system of Outdoor Laboratory Schools in the public school system—schools similar to those present in several systems today, as in Jefferson County, Colorado. These outdoor schools will be places of teaching fact—fact that allows concepts to develop and understandings to dawn. Fact is easily taught in such surroundings because it exists on every side in reality—a glacially carved slope, a plant community, an ecological balance, an example of plant adaptation. However, since fact is so easily taught outdoors it may become the end as well as the beginning of an outdoor program. If so the true worth has never been realized. The outdoor school must teach of ideal as well as idea. It must train the eyes and other senses to grasp the over-all picture so that it can train the mind to grasp the aesthetic values in the natural scene. Given a chance to approach the outdoors quietly with all the senses in full action—not only seeing, but listening, smelling, feeling and tasting as well—the youngster will develop a new reverence for life, will experience

the awakening of new and more meaningful values, will learn a personal dedication and establish a more worthy set of goals in his life. He will begin to "see where he is going" and thus measure his life in terms of what it can be and what it can do for others.

Facilities for permitting boys and girls not only to visit, but live in a natural setting for periods of not less than three days are needed—are necessary—for full development of these values and attitudes. The scene can be mountain slope, prairie hill, stream bank, forest, or plain—the exact topography does not matter and no one has the advantage. For any land type, if left in a nearly natural state can become the breeding place of concepts and a greater awareness of beauty.

2. Conservation guides and manuals must be written with a new emphasis on a field of conservation hitherto almost completely ignored—the conservation of natural beauty. Soil, forests, water, and the other examples of physical conservation are readily taught (though not always realistically) but the conservation of an undisturbed heritage remains almost totally absent in the curriculum of our schools because it is almost totally absent in our textbooks and teaching guides.

3. Teachers must be assisted in their own appreciation of the outdoors and its meanings and values so that they can properly take youngsters and open their eyes—eyes deadened by ugliness. These teachers must be taken into the field by proven master teachers from their own ranks. It will be a job not easily done—which explains why it has not often been tried—but it will be a job singularly productive in the education of boys and girls who become aware of the true inherent values of natural beauty and carry on to their adult life a continued program of activities to maintain or restore beauty.

4. Appropriate courses in considering the aesthetic values must be initiated in teacher-training colleges—courses perhaps taught by scientists themselves, those who understand more of the world about us and possess the ability to communicate the facts for appreciation of beauty.

Such a program, involving steps as outlined above, if superimposed on the elementary years of our youngsters, will gradually rise upward as these children grow into adulthood, carrying their ideas and ideals along with them. Then the preservation and restoration of beauty need not be only taught concepts, but practiced ideals. . . .

Mrs. DONALD H. McLAUGHLIN. Our elected and appointed officials must make many decisions affecting natural beauty. The educational and/or persuasive efforts of the developers or business interests are in many instances much more forceful than the efforts of citizens concerned with the preservation of natural beauty. It is understandable that our elected officials feel that they must spend the taxpayers' money wisely. The current criteria seems to be: that which is the least costly way is the best way, no matter if areas of outstanding natural beauty are destroyed. The lowly taxpayers often protest in vain. The value of beauty is seldom given any consideration. We hear only of the importance of enhancing the tax-base.

Natural beauty is often an intrinsic part of an area's natural resources. Long-term economic, ecological and aesthetic values should be weighed against the usual objective of short-term profit.

Standards for beauty and for the quality of the environment in which we live might someday be incorporated into city charters and into the instruments of government across the land. In certain countries in Europe, as I understand, there are commissions for the environment. It might be beneficial to study how other countries in the world deal with this problem.

Is there not an economic value in natural or created beauty? It would seem desirable to appeal to foreign as well as domestic tourists. It is the areas of natural beauty, the sites of historical interest and the monuments of manmade beauty that are advertised by the travel folders. How can we in the United States best compete for these travel dollars? By cutting down our redwoods, by putting real estate developments haphazardly on our hills, in our valleys, and on our shores, by filling in our bays and estuaries with garbage and by permitting freeways to destroy historical sites, urban vistas, and much of the natural beauty of the countryside?

There is a growing trend to beautify the dreary downtown areas of many cities. This was probably a reaction to the competition of suburban shopping centers. Whatever the reason, the trees, flower boxes, and fountains add greatly to the attractiveness of any community. Now, it is the suburban shopping centers that could use some beautification. Perhaps tourist appeal might be cultivated by the chambers of commerce of the cities and States, since, according to a U.S. Department of Commerce study, the influx of a mere 12 tourists a day into a given region is the equivalent of adding a \$100,000 annual industrial payroll to the area.

In many instances, labor sides with business and industry when there is a choice of whether to preserve an area of natural beauty or destroy it for residential or industrial development. Perhaps the development would be of great benefit to the area. Perhaps, on the other hand, in the light of the shorter workweek, increased leisure, greater demands for recreational areas, and the desirability of open space areas due to population density and intensive land use might dictate that the greatest benefit to all concerned including labor would be to preserve the area in its state of natural beauty. Leisure time activities of the future should be given consideration now in any city and regional planning.

It is very gratifying to know that President Johnson will set up a special unit for citizen education to help inform people how they can best combat blight and decay in their own neighborhoods.

The following suggestions are offered:

1. It would be very helpful if there could be one coordinated, comprehensive list giving the necessary information on funds available from the various different Federal agencies pertaining to planning, open space, land acquisition, and outdoor recreation.

2. It would also be very helpful for the missionaries and crusaders if there could be one comprehensive list of all the publications on the above subjects.

3. If possible, it would be most helpful if there could be a periodic list put out during the time Congress is in session of all the bills that would affect natural beauty or the environment.

4. Citizens would be most grateful to have at hand information on the legal and economic aspects of natural beauty, such as scenic easements, multiple-use possibilities of private land, tax costs vs. tax gains, zoning to protect agricultural land, etc.

It is all very well to be philosophical about natural beauty, but, with the current economic and population pressures, action is of paramount importance.

Conservationists and lovers of natural beauty for many years have been attending meetings and conferences where the well considered and well expressed messages go out to other conservationists and other beauty lovers. These ideas must become ingrained in our whole population. It is a selling job. Cars, foods, and automobiles are sold by the use of repetitious slogans and jingles on TV, radio, and in the press. Why not use this same means as one way to promote and broaden the cause of conservation and natural beauty?

The goals we wish to achieve must first be determined, then the best means and methods must be used to attain them. As so well expressed by Mr. S. Clark Beise, chairman of the executive committee of the Bank of America :

In my view, our most pressing problem is the need to determine now how we are going to utilize and preserve the one great asset that we cannot replace—the physical attributes of the area.

We have to make decisions now on what attributes we want this area to have in the future.

To do this we must determine our values. . . .

Once we decide on our values, then we must find the means to preserve or attain them. . . .

We must approach each other with the will to agree on proper solutions. . . .

If we have the will to agree, the desire to achieve our common goals, we can have the progress and growth that you and I and our children and grandchildren will be proud of.

To determine and achieve these goals will require that there be cooperation between all segments and groups of society. Housewives, teachers, construction workers, businessmen, elected and appointed officials must share the responsibility and work together so that a high quality of the environment in which we live may be enjoyed by all.

As an individual draws strength from close association with natural beauty, it is to be hoped that the whole moral fiber of the character of the American people will be strengthened by this important and timely emphasis on natural beauty.

ALLEN H. MORGAN. The question of whether or not education of children and adults is important is not (or should not be at least) at issue—it is perfectly obvious that public opinion is conditioned by experience and education, which in turn is fundamental to what the public demands or acquiesces to. Furthermore, there are many concrete examples that demonstrate that the techniques are known and that they work—that in fact the public will respond once it has been subjected to the educational process; that in fact youngsters respond enthusiastically and that once such an educational program has become installed in a public school system it is almost never discarded.

What holds us up are children's parents who do not believe that

the subject is important enough to justify time in the formal schooling curriculum or the dollars to make it possible. Fundamental to the break-through necessary to secure time in the curriculum and dollars on the budget is to convince people on school committees and city councils that it is to their financial best interest.

There are several fundamental needs:

1. Documentation of the financial value of a healthy human environment: what beauty or the lack of it does to the tax rate; to demonstrate the impact on people as reflected by the occupants of our mental and penal institutions and by the gigantic bill for urban renewal.

2. We need testimony from the highest levels, such as is being provided by this White House conference, of the basic importance and need to conserve natural resources and beauty in the human environment as documented by Recommendation No. 1 above.

3. We need a master "cutter of red tape"—a solution to the complexities of Federal aid programs that are so narrowly interpreted and enmeshed in red tape that as a practical matter a local organization finds it impossible to secure the help it needs from legislation that was enacted to provide that help; to find a solution to such mundane problems as providing academic credit for conservation teacher workshops so that the teachers will in fact participate—again, because it is to their personal monetary advantage to do so.

REV. S. T. RITENOUR. The President began his address on Natural Beauty to the 89th Congress with this observation:

For centuries Americans have drawn strength and inspiration from the beauty of our country. It would be a neglectful generation indeed, indifferent alike to the judgment of history and the command of principle, which failed to preserve and extend such a heritage for its descendants.

And the President concludes in this vein:

The beauty of our land is a natural resource. Its preservation is linked to the inner prosperity of the human spirit.

The tradition of our past is equal to today's threat to that beauty. Our land will be attractive tomorrow only if we organize for action and rebuild and reclaim the beauty we inherited. Our stewardship will be judged by the foresight with which we carry out these programs . . .

The wisdom and challenge thus expressed promise us as a people under God, to move even more directly to the roots of a concern for beauty.

To preserve what has been given is an element of stewardship. This has a religious basis. To reclaim and re-create beauty is also rooted in our religious traditions.

Whereas the Christian, in his response to God's deed in Christ involves a concern for the natural world and for human life, our strength is from the Judaic tradition as well. We find recorded in Holy Writ that God ". . . has made everything beautiful in his time" (Eccles. 3: 11—K. J.) Our Judaic-Christian heritage also calls for the recognition that God is acting in the realm of the arts and of culture to fulfill it and to realize its full potential. With such a theological basis, therefore, it would be well to call the attention of the delegates of this significant conference to the fact that representatives of all religious faiths—Catholic, Orthodox, Protestant, and Jewish—have joined with the American Institute of Architects in making a proposal for the establishment of a Center for Interfaith Research on Religious Architecture.

As a preamble to this proposal we jointly agreed on this statement:

When we build religious buildings, we do not begin with architecture or the architect. We begin with what we believe about God and our reasonable response to building in our time and place. We must realize that we do not worship in our religious buildings but that we also worship with them. If we do not know what we believe or if we do not believe earnestly or deeply . . . or, if we are unable to give a reason for the faith that is in us, we cannot inform the architect or open him to inspiration. In view of the rapidly changing nature of our society and the ever increasing investment of funds in religious buildings, it is deemed advisable that a thorough study of the situation be undertaken.

The purpose of such a study is:

The promotion of a religious architecture and art, through the materials and techniques presently available expressing a meaningful and spiritual affirmation and manifesting a living tradition in forms that speak in a positive way to our contemporary society.

We believe that this proposal is in harmony with the President's Message on Natural Beauty. Moreover we hope that the chairman of the White House conference concurs and would encourage the establishment of such a Center for Interfaith Research on Religious Architecture.

J. LEWIS SCOTT. A Federal survey should be made of universities and colleges offering engineering degrees, to discover how much time is now being allotted to studies of ecology. Efforts should be made to assist universities and colleges in developing courses in ecological studies leading to a degree.

PAUL B. SEARS. Reflecting on the excellent program of the conference, I hope that strong emphasis will be given to the remarks of Secretary Celebrezze on the necessity of interest and initiative at the local level.

As a corollary to this and since we must look largely to college-trained people for leadership, I hope that attention will be called to the strategic importance of required courses in biological science at the college level. As matters stand at present, many, perhaps the majority, of students who complete this requirement emerge without any appreciation of the dynamics of the total landscape. This is due to a primary emphasis on the analytical aspects of biology, notably the molecular and cellular phenomena which are making such striking advances at the present time. As a result, attention to the total ecosystem and living communities in their relation to man receives only slight emphasis, if any.

If the educated man or woman is to understand how intimately man is related to and dependent upon ecological phenomena, it is important that this condition of which I speak should be remedied. I realize that this is a large undertaking because teaching in this as in other fields is so largely controlled by convention.

Dr. J. HAROLD SEVERAID. I cannot emphasize too strongly the importance of Mr. Scheffey's admonition that college and university department heads will need the help of government to instill in them the need for a new philosophy if these institutions are to train the beauty specialists of the immediate future. The environmental ecologists are normally not in control of the current, so-called modern, science curricula.

I feel safe in saying that many of the educational mandates called for by the panel on education will fail miserably if it is not recognized that a crash program of education will not accomplish the purpose intended until and unless teachers are properly taught first. Too many of our elementary teachers today cannot distinguish between natural history per se and conservation. Thus, they teach or practice the former out of context with and totally independent of the

environmental interrelationships which are at play in every situation. We must first teach environmental ecology to our teachers before they can teach an integrated course in natural beauty to our children.

E. G. SHERBURNE, Jr. I am heartily in favor of the aims of the natural beauty program, but I feel that the panel on Education did not sufficiently emphasize the difference between indoctrination and education. I am referring to the suggestions regarding the teaching of conservation in the schools.

Conservation is, after all, based on an understanding of the basic scientific principle of the interrelationship of all living things, and the realization that man is himself an important part of the natural environment. Conservation includes further understandings from biology, chemistry, physics, geology and other fields.

But while conservation has a substantial scientific element, it also includes a point of view. The insertion of a point of view into a school curriculum I feel verges on indoctrination. Since the schools are under tremendous pressure from all sides to integrate points of view into their curricula, I feel that this is something that should be resisted, no matter how much I agree with the particular point of view in question.

I believe that the best understanding of conservation and commitment to its goals will be derived from a sound education in the various pertinent scientific disciplines, and not from classroom persuasion. For if the conservation philosophy cannot be rationally arrived at, I for one would oppose it.

The schools should and do teach science. I suggest that our efforts should be aimed at helping them improve science education, confident in the belief that out of a knowledge of science and out of a contact with the natural environment will come the love of natural beauty that we all should have.

JOSEPH J. SHOMON. Because beauty is a quality of human perception which, for the most part, must be learned, it is imperative that there emerge across America a great back-to-the-land movement for learning, for enlightenment, and for nature appreciation. Only the sensitive mind aware of what makes things naturally beautiful can hope to advance beauty, can correct ugliness. Only a person who understands nature and his role in the total environment, including the importance of natural resources, can be expected to assume meaningful citizenship responsibility in conservation and natural beauty action programs.

America, therefore, needs centers of land for learning—community nature centers or outdoor classrooms where the child, the student, the parent, the senior citizen can frequently and with ease maintain close communion with nature. Such centers need to have three elements: at least 50 acres of land in or near cities where citizen life is confining and almost entirely urban; an interpretive building where people can meet and be oriented; and an educational outdoor program based upon the land, conducted by a staff of trained teacher-naturalists.

A number of such centers already exist. These are operated in part by government agencies (local, county, State or Federal), others jointly by government and private organizations, still others by private associations entirely. However, for this practical, much-needed outdoor education effort to be effective, there must be a legion of community nature centers. The Federal Government, in close concert with the 50 States and with counties and municipalities strongly cooperating, should encourage this program and give it broad moral and financial support. Private organizations should be encouraged to play an active role. If America can have 2,000 nature centers serving a total of 200 million people each year, especially educating children, conservation and natural beauty perception in the individual will be transformed into needed action programs and projects.

As director of the Nature Centers Division for the National Audubon Society, I have been in direct contact with the nature centers movement in America for four years, know its value, its potential, its needs. I urge that the White House Conference on Natural Beauty strongly endorse the community nature centers concept and commend it as a program of action for government, industry, private organizations, and the individual citizen.

LUKE M. SCHRUBEN. While the panel alluded to several types of education endeavors, the different types of education were not specifically articulated. Most attention was given to education designed to achieve appreciation and respect on the part of our citizens for natural beauty. Many and varied suggestions were made for achieving this.

I would like also to suggest that the report carry a section dealing with types of education necessary to provide technical knowledge for

those individuals, groups or organizations who have an interest and are in a position to assume responsibility to preserve or restore natural beauty.

Educational effort in this area would take on two dimensions:

First, that of providing technical knowledge which could come from many sources but probably from our State universities and land-grant colleges and other institutions or knowledge centers where such technical knowledge is available. This would deal with the facts essential to proper planning for preserving, restoring or developing our natural beauty. The second area of direct assistance to individuals, groups or organizations who are either interested or who are in a position to mold public opinion is in the area of assisting them to be effective communicators. That is, training in effective ways of communicating to the public, Federal, State, county and other officials who are responsible for actually implementing programs in order that they can effectively influence actions taken. In other words, these individuals, groups, and organizations would need to be trained in not only what to do in the way of technology but also how to do it in the matter of dealing with public opinion and actions taken by responsible officials.

This type of assistance would be directed to helping individuals, groups and organizations to be effective as leaders rather than effective participants.

I am sure you can see that the second type of educational effort would encompass an entirely different dimension than the first type mentioned. It would take an entirely different body of subject matter and an entirely different approach to the training effort. Training leaders to lead is far different than training individuals to participate.

Dr. JULIAN W. SMITH. Education was one of the major concerns at the White House Conference on Natural Beauty. While there were many important issues considered that would help restore and protect the natural beauty of the land, the need for education of the public, and particularly children and youth, pervaded the discussions on planning for the future. As Aldo Leopold once said, our job is not one of "building roads into lovely country, but of building receptivity into the still unlovely human mind."

It was said at the conference that there must be beauty in the hearts and minds of people, otherwise the efforts to provide a good

environment will be in vain. Several of the recommendations of the conference pertaining to education were specific, such as:

1. Provide a learning climate in areas of natural beauty such as outdoor classrooms in camp settings (school camping), outdoor laboratories on adequate school sites, in parks and nature centers, and field experiences in open spaces.

2. Teach conservation concepts in all appropriate places in the curriculum and provide actual experiences for children and youth in improving and beautifying the natural environment.

3. Teach attitudes and outdoor skills for the worthy use of leisure time.

4. Develop appreciations for natural beauty through the arts, sciences, literature, and other areas of the curriculum.

5. Inservice and preservice education of teachers in outdoor education, conservation, and outdoor interpretation.

6. The complete use of all community resources, including leadership and facilities, in a program of continuing education for all ages.

7. The mobilization of the efforts of all community agencies—Federal, State, and local—that provide leadership, facilities, and lands that will afford learning opportunities for the appreciation and conservation of natural resources. In this connection, there should be interagency and interdepartmental cooperation and coordination of efforts by government agencies, professional groups, and private enterprise.

There never has been a time when the climate was better for bold and imaginative educational programs. There is a great national concern for natural beauty and outdoor education as evidenced by the interest of the President of the United States and the legislation enacted by the Congress. New laws, such as the Education Act of 1965, the Economic Opportunity Act, the Land and Water Conservation Fund, the Open Space Land Act, and numerous others, will provide leadership and facilities for outdoor education, outdoor recreation, conservation, and natural beauty. Schools can move forward with moral and financial support of government and develop programs to meet many of the educational needs of an exploding population which is largely centered in metropolitan areas. Some of the cherished hopes of forward-looking educators can now become realities.

For leaders in health, physical education, and recreation there are great opportunities to enrich and extend education through the development of community schools, school and community recreation,

outdoor education, health and fitness through outdoor-related life-time skills and interests, the construction of park-schools, and other programs. These programs will call for team efforts on the part of all teachers and leaders within the school and in the community.

Colleges and universities can prepare teachers and leaders who can teach in and out of classrooms, conduct research, and work with schools and communities in the implementation of research findings.

Amidst the great cities which man has created there can be beauty, said the White House conference leaders. This is accomplished through a blending of man's creations with the beauty of the still abundant open spaces. The managers of our lands, the planners, architects and engineers, the educators and an aroused citizenry, working together, can restore and protect our rich heritage of natural resources, create beauty in our homes and communities, and build receptivity into the minds of all our citizens. There can be for all the heritage of a good life in an environment of peace and beauty.

Dean STEPHEN H. SPURR. A possible prototype for an integrated professional and graduate school dealing with conservation and natural beauty may be found in the School of Natural Resources at The University of Michigan.

Nearly 200 graduate students and a similar number of undergraduate professional students here are involved in intercoordinated studies in naturalist training, conservation, regional planning, landscape architecture, outdoor recreation, forestry, and fish and wildlife management.

It is to this and other developing schools of environmental management that America must look for professional leadership in developing and maintaining natural beauty.

WILLIAM B. STAPP. Since this panel is concerned with the important topic of education, I would like to emphasize that one of the most important challenges of conservation today is to develop an effective method of implementing conservation education in our school system.

If we are to move ahead in the field of conservation and successfully meet the conservation challenges of the future we must develop aroused and informed citizens who will take an active role in local, State, national, and international resource issues. An effective model

of integrating conservation education into a total school system is operating in my hometown of Ann Arbor, Mich.

The Ann Arbor conservation program spans the curriculum kindergarten through the 12th grade, so that the conservation understandings can be presented in a logical sequence and at the time the learner is most receptive to the material presented. In the elementary grades the program gives the learner an opportunity to study some of our community resources under natural conditions. This provides certain learning experiences that cannot be duplicated within the schoolbuilding.

The program at the secondary level emphasizes the management of our natural resources and focuses on local, State, and national resource problems and possible solutions. The Ann Arbor program provides also a comprehensive inservice training program for teachers that operates throughout the school year and is directed at helping teachers to increase their understanding, interest, awareness, and teaching skills in conservation.

As a result of Ann Arbor's conservation education program it is hoped that many of our future citizens will not only have greater interest and understanding of resource problems but will take a more active part in helping to solve local, State, and national resource issues. It is through programs of this kind that our future community citizens will have the incentive and tools to cope effectively with these things in the future.

I would be happy to cooperate in any way with persons who would like to have more details. The message is covered quite adequately in the book I have written about it and put on sale in the Ann Arbor bookstores. It sells for \$2.60 in a paperback edition.

ZACH R. STEWART. Conservation, outdoor recreation, natural resources, urban renewal, and environmental health are subjects closely related in their scope and vitality. It is not too soon to identify the growth of interest in these subjects nationally with the establishment of a land ethic reconcilable to increased population and changing life patterns. The land ethic is beginning to show evidence of similarity to the land/spirit marriage in the mind of the American Indian. Long ignored, and in some cases actually suppressed, this attitude is experiencing a renewal of strength which parallels the rise in Indian status as tribal landholders, and the rapidly increasing Indian population.

A goal challenging enough to capture the support of the commu-

nities of education, conservation, government, recreation, and health might be to foster the growth and acceptance of a land ethic rooted in the American spirit; a goal synonymous with the quality of environment.

Communication of an idea can take many forms. The 19th century Chautauqua, a colorful early American method of communication, seems most appropriate to a grass roots establishment of a land ethic. Visualize a Chautauqua circuit traversing key cities and towns throughout the land. A number of sensorium units travelling the circuit could seed information directed at the American's concern for his land in each community.

What is a "sensorium"?

It could be called a traveling school enlivened by five nomads representing mixed interests—for example, an historian, an environmentalist, a musician, a religious man, and a botanist, chosen as entertainers in their own right. Give them a mobile unit full of a wild assortment of electronic communication equipment and sensorial materials along with the mission of fascinating, entertaining, and educating the general public. By emulating the organization and purpose of the Chautauqua and by using mixed new and old methods of communication they could create a talked about and entertaining environment.

Perhaps they would camp for the night, or for a week, in the city park—even Central Park. With their mobile units as stages and their slide projectors, sound equipment, and ability to entertain as a resource they might start by giving a show in recognition of the local conservationists and with their participation.. With automatic color-slide cameras and tape recorders they might document an environmental problem like the San Francisco Embarcadero Freeway and present it as a *son et lumiere* or sound and light show. They could serve as a rallying point in each community for those interested in quality of environment and in addition attract attention of the local press. What television crew could resist documenting a band of colorful nomads with flowers, trees, and the single word beautification painted on their rolling stock.

The sensorium would give voice to beautification in popular rather than rhetorical terms. The most potent educational media is reality, and the presence of five highly motivated people in a variety of grass roots environments would not only capture local but also mass media interest. It goes without saying that the sen-

sorium units should visit the American Indian and invite Indians to serve on the nomad teams.

Finally a word of caution—a sensorium is not a preprogramed audio-visual tour de force. It is a lively and spontaneous performing instrument adaptable to the mood and preference of the audience and the nomads.

Mrs. VICTOR STONE. Use Project Head Start this summer and thereafter to introduce hundreds of thousands of preschool 4- and 5-year-olds to beauty through the materials and field trips their teachers provide. Mr. Shriver's office should be asked to give guidelines consistent with the substance of beautification-conservation ideas to all communities engaging in Head Start programs this summer. My own community: Champaign and Urbana, Ill., will have Head Start projects in the school systems this year and I think they would welcome such materials and suggestions.

ROBERT L. WALN. The proposal is to establish a permanent national center for accumulation and display of information concerning the goals and activities of all organizations and agencies engaged in the promotion of natural beauty. This center would be named the Natural Beauty Education Center.

The purpose of the Center would be to acquaint the various organizations and agencies and the public with what is being done, how it is being done, the problems and possible solutions, and to assist in coordinating the total effort. To this end it is suggested the Center be composed of three major parts.

Part 1. Display of written material in the form of leaflets and other published data, visual aids such as charts, pictures, colored slides and movies, and demonstration plots . . . by the various organizations and agencies participating.

Part 2. Office space for a representative of the various organization groups such as the roadside councils, the horticultural societies, the garden clubs, the conservation and recreation societies, and the interested government and commercial agencies. Such representatives would assist in coordinating the activities among the members of their group and act in a liaison capacity between them and other groups. Centering would make possible economic sharing of meeting rooms, projection, printing, publishing, and other facilities.

Part 3. The Center could become the location of an agency for licensing, determining curriculum, giving examinations, and issuing diplomas, to small schools of horticulture operated by the botanical

gardens, arboretums, and public parks where students on a work-study basis could learn gardening at the garden level and also be taught the fundamentals of beautification of home surroundings, community projects, city and industrial landscaping cooperation, and the approach to establishment of county, State, national park, lake-side, and seaside areas, roadside beautification, and other phases of natural beauty promotion. A pilot school could be operated at the Center for maintenance of grounds and displays.

An organization with people of vision, dedication, capability, and containing in its membership a cross-section of speciality organizations is the Men's Garden Clubs of America to whose 33d Anniversary Convention at Amarillo, Tex., June 13-17, this proposal is being presented with the suggestion that they consider taking the initiative in establishing this Center.

The proposal was outlined by the writer at the annual meeting of the Council on Foundations at Pittsburgh, Pa., May 19-21, where one of the larger foundations invited submission of the proposal for consideration of a grant to study feasibility, extent of cooperative interest, cost of land, building, equipment, staff and operating expense for a five-year period, plus methods of self-perpetuation thereafter. That foundation may also consider a grant to aid establishment of the Center. This proposal has now been submitted to them.

WILLIAM L. C. WHEATON. I think that the whole Natural Beauty conference had a very perceptible bias against cities and therefore tended to neglect the basic problems to which everyone paid lip service. A dozen speakers noted that there are going to be 90 million more urban people. But one panel was devoted to the townscape which discussed urban problems, three other panels adverted to them, and 11 others largely focused their attention on rural problems or rural solutions. There was the further astonishing fact that of 126 panelists and speakers there was only one mayor, one elected county official, and one elected State official. Surely this proportion inadequately reflects a society more than 75 percent urbanized.

The panel in education, I fear, reflects the same unconscious influences. Several speakers emphasized that the problems of urban open space and recreation would be solved by taking sixth-grade children out to look at butterflies. No one ever suggested that a childhood acquaintance with nature, still the common experience of most adult Americans, had led to the deplorable and uncon-

scionable state of our cities today and to the despoliation of much of our national heritage. Evidently a brushing childhood acquaintance with nature was not enough. If so, it is because there was no followup through high school and college, in professional training and in graduate work. A mere childhood affection for nature is nonsense without the more important followthrough at all stages of education.

More than that, the preservation of nature outside of cities is an indifferent solution to the problems of the 190 million people who will live out their lives within the cities. Appreciating the deep concern of the conferees and the panel members, I nevertheless find them expressing their biases regarding what has been done and what they can do well, rather than their recognition of the need for things that should be done and which we do not know how to do.

The rural bias of your report is clear, at least to me. A quick scanning of the report reveals that the word "urban" appears twice in a thousand words. In a report replete with references to rural areas and rural phenomena, the word "city" does not appear at all. "Urban planning" appears at the end. Agriculture, Interior, and Health, Education, and Welfare and other Agencies are mentioned several times, but there is no reference at all to the Housing and Home Finance Agency or to the Department of Housing and Urban Development which appears to be about ready for congressional action. There are repeated references to the educational programs of the Department of Health, Education, and Welfare and other agencies, but there is no reference to the program of grants to the States for research and training in urban development authorized by title VIII of the Housing Act of 1964. I am sure that any systematic content analysis of the document would merely reinforce my hunch that it was focused almost entirely upon our historical concern with rural areas rather than the real problem which I construe to be urban areas.

Specifically, I think the Housing and Home Finance Agency or the prospective Department of Housing and Urban Development should be mentioned along with other agencies. There should be a specific reference to urban problems, city planning commissions, municipal government, and the like. Reference should be made to similar urban agencies and urban neighborhood groups, and there should be a reference to title VIII of the Housing Act of 1964. This

title should also be mentioned where the proposed act dealing with urban extension is mentioned and an existing act dealing with the same subject is neglected.

I am sure that these omissions are the result of unconscious neglect and perhaps of the negligence or inability of the Housing Agency local officials and others who ought to be concerned. Nevertheless, when so much lip service is given to the importance of the urban population in our society, it is a tragic miscarriage that these problems and the programs necessary to solve them should, in effect, be neglected so fully in a draft report developed by so distinguished a group of national leaders in this field.

The President has shown magnificent leadership in this whole program. He recognizes that the problems of the future are urban and must be solved in great degree by new urban instrumentalities. I fear that we will do him a disservice if we fail to examine our own historic biases and to devise those new approaches.

Mrs. J. M. P. WRIGHT.* President Johnson's call for beauty comes at a time when a crisis faces America's old cities, the landmarks that record its history. They are disintegrating under the complexities of modern investment and development techniques. From coast to coast the unique values they bring to the American cultural scene are vanishing.

Occasionally old mansions are saved. Isolated victories are gained by embattled citizens' groups. But this is not enough; the beauty, the distinction, the regional character of our cities lies in their total environment.

Can this trend be reversed? What resources can America marshal to bring beauty back to the old cities? To salvage the architecture of preceding centuries? Can concerted effort save and maintain this heritage as a valuable part of America's growth?

Its value is established in Annapolis where a small but successful educational program developed by Historic Annapolis, Inc. over the past 12 years has awakened young people to their surroundings. Here in the authentic setting of an original city plan, the buildings of three centuries speak directly of the history and culture of each period. The connection established between the people and processes of today and the people and processes of yesterday is clearly stated; it has meaning for children of diverse ethnic groups, it is a common

*This is an extension of the remarks made by Mrs. Wright during the panel discussion.

heritage shared by all. They express their awareness of beauty and history in poems, paintings, prints, essays and letters. As one mother remarked, "the children are having a love affair with the city".

In contrast to the success of the children's program, the effort to educate local financial institutions and property investors to economic and aesthetic values in the historic district is a dismal failure. The incongruous land developments supported by these interests are disastrous to beauty in the one-third of a square mile comprising the historic district, an area approximately one-tenth of the total city area. Seminars (The Annapolis Round Table Conference, 1960, The Growth of Historic Town, 1962), publications, radio discussions, support from out of town news media have only solidified opposition. It is we, the preservationists, who have been educated to the connections between entrenched political customs, property ownership and transfers, local financial institutions, rising real estate prices and damaging propaganda. Annapolis is a prototype of countless other cities where such customs are a normal part of the American scene, as traditional as turkey on Thanksgiving. The danger to the President's program stems from our new association with the economics of nearby metropolitan centers.

In consequence, we who presently carry the burden of preserving America's heritage desperately need help. We ask for the essential tools to educate the controlling political and financial powers. These tools are beyond the scope of volunteer civic and preservation groups.

They include accurate financial studies and forecasts, market analyses and advice on political action made by independent research groups not subject to local pressures. These studies must precede city planning in order to gain acceptance for the innovations and creative solutions required to retain beauty and order in old cities.

Additionally, a system of tax benefits for harmonious developments in old towns is a fundamental need. We ask also for a review of the impact of Federally funded programs on urban land use. If under present regulations builders find that there are investment advantages in ugly structures, no pleas for beauty will deter them.

CITIZEN ACTION

1:15 p.m., Tuesday, May 25

The Chairman, Mrs. WHITTEMORE. In opening this Citizen Action Panel, I should like to begin with this quotation:

Above all . . . (a beautiful America) will require the concern and action of individual citizens, alert to danger, determined to improve the quality of their surroundings, resisting blight, demanding and building beauty for themselves and their children.

This sentence, taken from the President's Message on Natural Beauty, indicates what citizens must do if new programs are to be used, new ideas adopted, planning for natural beauty undertaken, and the plans put into effect in local communities, metropolitan areas, regions, and the country as a whole.

It is hard to imagine a field where so many kinds of useful citizen action are now possible, where so many groups can be involved, where so many tools are already at hand or being perfected, such excellent leadership is being given, and where citizen action has such good chances for success. This panel will explore the part which different groups can take in stimulating interest, providing information, and activating programs to preserve and enhance the natural beauty of the country.

Members of the panel bring to the discussion a variety of experiences: business, industry, labor, mass media, women's clubs, community and civic groups.

Much can be accomplished by individuals or private groups, but there remain other places where government action will be needed

Members of the Panel on Citizen Action were Mrs. James Bush-Brown, Mrs. Nancy Dickerson, Marvin Durning, Leo Perlis, Smith L. Rairdon, Mrs. Virginia Stitzenberger, John Terrell, and Mrs. Arthur Whittemore (chairman). Staff Associate was Sydney Howe.

to halt the blight of ugliness and carry out positive programs to make America beautiful. Citizen action concerns itself with encouraging private effort, and providing broad support for the public programs.

Mrs. STITZENBERGER. As director of the General Federation of Women's Clubs Community Improvement Program, a nationwide program underwritten by the Sears, Roebuck Foundation, it has been my privilege to work with clubwomen all over the country. Projects undertaken by these volunteers have ranged from simple, one-time improvements to vast, over-all community development projects. Many of them have included some aspects of beautification.

Through this program, we have seen miraculous things accomplished by average citizens when once they understand techniques of motivation and community cooperation. In their roles as catalysts, clubwomen have discovered that it is necessary to involve as many elements of the community as possible in the early planning stages. This is especially applicable to beautification where the cultivation of indigenous leadership is as important as the cultivation of flowers.

Where possible, it is desirable for professionals and volunteers to work together to achieve goals. Take North Little Rock, Ark., where for 30 years one of the worst slums in the South crouched behind a floodwall. People lived in old buses and in shacks constructed from tar paper and packing boxes. Using the Federal slum clearance program, the city government razed the shacks and cleared the area. Clubwomen volunteered to assist with the resettling. With this done, they turned their attention to the wasteland where the shacks had stood. Volunteers became the moving force in turning the river front into a beautiful city park. The stark floodwall was a poor background for a beautiful river front park so clubwomen employed a well-known expert to design a mural depicting the history of Arkansas. The mural, which they painted themselves, became a tourist attraction as well as a beautiful backdrop for the park.

Professionals sometimes discount contributions that volunteers can make toward achieving goals. Volunteers are often intimidated by their exalted concept of the knowledge and prestige of professionals. They need each other for mutual education and exchange of ideas. No matter how expertly planning is done, if programs are not in-

terpreted at a level the citizen can understand, the programs are headed for failure. Most communities wish to be more attractive but lack skills for organizing to get the job done. I believe that a system of workshops could be developed that would bring together community development experts and other professionals to train community leaders in techniques of problem solving which can be applied to beautification as well as other community improvements. We have used this system effectively in training clubwomen.

Since beautification is contagious, both Federal and private grants for demonstration projects should stimulate towns and cities to action. An example of the value of demonstration is Smithfield, N.C., where citizens decided to improve the appearance of their town. After visiting communities that had solved problems comparable to their own, they made adaptations which won them an All-American City Award as well as a National Community Improvement Award in our program.

It would be helpful if someone developed a Guide to Federal Aid for Beautification. The average citizen, when confronted with the task of ferreting out regulations from the various agencies, becomes lost in the maze. We need better communication between programs and people.

Citizens should be made more aware of the relationship of beautification to economic development and prosperity. In Grafton, W. Va., where the town was dying because of lack of industry, the women of the community set out to clean up the town, develop parks and recreational facilities, and to prepare for new industry. When the town had undergone sufficient change, industry came.

Beautification projects are not always ends in themselves but are often an open sesame to solutions to other community problems. Leavenworth, Wash., suffered from economic depression and lacked educational and recreational facilities. Eleven clubwomen reversed the trend toward disaster by getting citizens to work together to develop a park and other recreational facilities for the children. They were then able to move into more controversial areas of improvement. A nine-times defeated school bond issue passed, a new firehouse was built, and a ski area was developed. They now plan to turn store fronts into an Alpine village setting.

We regard these and other success stories as homemade miracles. They can come to your town or city by volunteers and professionals working together to beautify America.

Mrs. DICKERSON. The biggest problem at this conference is how to translate the vast knowledge and creativity here to the individual—and how to translate it so the individual does something about it.

As there have been many Washington conferences before ours, there will be many in the future that meet, keep records, adjourn, and that's the end of it. Our conference will be like those unless we find some way to translate the great umbrella word "beautification" to the individual.

There are many ways of doing this. Take the Washington visit of Ethiopia's Emperor, Haile Selassie. To the rest of the world this was a diplomatic encounter to cement relations between an African nation and the United States. So it was. But to those of us in a small section of Washington, it had a far more personal meaning.

Across the street from our house is the Ethiopian Embassy. There was a great flurry of activity at the Embassy months before the arrival of the Emperor, the King of Kings—the towering Lion of Judah. Painters, cement mixers, gardeners, and sandblasters came each day. Each day we watched with fascination as the Embassy became more beautiful. Also watching, as neighbors everywhere will, was the man who lives next door to us. He's Russell Wiggins, Editor of the Washington Post. So impressed was Mr. Wiggins with the Ethiopian progress that he employed the same sandblasters to clean the front of his house. The Dickersons watched their progress, too.

There comes a point when keeping up with the Joneses, or the Wigginses, or the Ethiopians, reaches home—literally. So, my husband talked to the same sandblasters, and now the front of our house is a gloriously clean stone. And what was an international exchange to most people on two continents became a clean-the-block campaign for us.

That's one way of translating beautification to the individual. For those not likely to become involved with the visit of the Ethiopian Emperor, there are other ways.

Fortunately, making the individual aware is not as difficult as it once might have been. There's a national ferment in the land that has made beauty a politically hot subject. In its March 1 issue, the *National Observer* tells us that the politicians find it an asset to support beauty projects. Politicians from Capitol Hill tell us that constituents who do not become personally involved in Vietnam or the Dominican Republic (unless a relative is sent there to fight) do become personally involved in local commu-

nity beauty conservation projects. Our problem is to capitalize on this new momentum.

How? I have two specific suggestions:

First: Conduct a national competition for local television stations and give an award to the station producing the best documentary on a local beautification project. The winning producer would receive "The President's Award" in the Rose Garden of the White House.

I have talked with several network officials who are convinced that such a competition would be welcomed—that at least one station in each of the top 50 markets would participate; in smaller markets, more would participate. Another official estimated that at least 60 percent of the stations would probably enter, which would be a very high percentage. The programs would create a dramatic wallop. I believe such a project is feasible. Perhaps the easiest way to handle this competition would be through one of the already existing award mechanisms such as the highly distinguished Peabody awards.

Second: Establish a Mayor's Committee for Beautification in each town. Its purposes would be to focus attention on glaring needs and spearhead local projects to do something about the blight. Then ask each State governor to appoint a panel of experts to select the most outstanding project in the State. The winning mayor in each State would be given the First Lady's Certificate of Distinction for Efforts To Make America Beautiful.

This would involve governors, mayors, prominent local citizens, and people who make news in all media. This is one of the best ways to get the beautification story to the people. I believe the Department of the Interior could handle such a nationwide, statewide selection.

I have been specific. I've tried to be practical. I hope we're all successful.

Mrs. BUSH-BROWN. Lewis Mumford, one of our most articulate exponents of city planning, recently made the statement that "any city planning worthy of being called organic must bring some measure of beauty and order into the poorest neighborhoods."

Many towns and cities in Europe have achieved this goal. The delightful use of flowers, even in the poorest sections, contributes almost as much to the charm of European cities as does the picturesque architecture. Most American cities have failed to rec-

ognize these opportunities. When people from Europe visit America they are invariably impressed with the drabness of many of our small towns and with the tragic neglect of the blighted slum areas within our large cities.

In an effort to improve this situation, the Neighborhood Garden Association of Philadelphia was founded in the spring of 1953 and initiated a program which has proved such a successful counter-attack against urban blight that it has received national and international recognition. This has become known as the Garden Block program. It has been a cooperative endeavor, involving the settlement houses, the garden clubs, and other sponsoring groups, and, most important of all, the people living on the blocks.

When the project was launched there were many skeptics. They said that we were too visionary, that we would be unable to cope with the vandalism, that we would meet nothing but apathy on the part of the people. Even the head of one of the largest settlements said that the program would be doomed to failure. However, each of the seven settlements agreed to start a pilot block. At the end of the first season there was no doubt in anyone's mind concerning the value of the garden block program. Not one of the 427 window boxes had been harmed. In the ensuing 12 years there has been only one instance of vandalism. The response of the people was tremendous. The flowers proved to be a catalyst that set off a chain reaction. Windows were washed; house fronts were painted; trash-filled lots were cleared; and the streets were kept clean.

On a typical garden block there are flower boxes at the windows and on some blocks little brick bays between windows or by doorsteps in which climbing roses are planted. If the block is in an area where there are front dooryards strewn with litter, they soon become gay with flowers. Vacant lots become community gardens or 4-H Club gardens or tot-lots for very young children. A garden block is a pleasant block upon which to live, a happy place for children, a block in which the residents take great pride. And with this upsurge of civic pride comes a sense of individual dignity and worth.

All garden blocks are judged during the summer, and awards are presented at the annual recognition dinner. Every block measuring up to a high standard of excellence receives a blue ribbon award. When the program was launched certain guidelines were set. We felt that, as much as possible, initiative should come from the people. A block desiring to become a garden block must

make application to a settlement house, or, if not in an area served by a settlement house, to the Neighborhood Garden Association. The man or woman presenting the application usually becomes the garden block leader, a position of considerable responsibility. There must be at least 80 percent participation within the block. Usually everybody joins. The boxes must be made by the men and boys on the block, or boxes with the stamp of approval of the Association may be purchased.

The members of the sponsoring garden clubs provide the flowers for the first two years, bring them in on a designated day, show the people how to plant and care for them, leave a seal to be put in the window, and take a continuing interest in the block. After two years the block becomes an independent block and is responsible for carrying on its own program. It remains a member of the Association and is eligible for awards and all privileges.

There has been heartening growth each year. From 7 blocks in 1953, there are now, in 1965, 452 garden blocks, the equivalent of 45 miles.

In depressed areas where the people were completely apathetic to their surroundings the Neighborhood Garden Association has been able to instill new spirit and morale. The program has taught neighbors to work cooperatively together to improve their community. It has developed leaders in areas where there had been little opportunity for constructive leadership, and it has helped people to grow into an awareness of their responsibilities as concerned citizens. It has fostered friendship and understanding between people of diverse nationalities and races. And, through the organization of an urban 4-H Club, the program has created opportunities for boys and girls to use their hands constructively rather than destructively.

During the past 12 years the work of the Neighborhood Garden Associations has had a tremendous influence upon the lives and the environment of more than 150,000 people in the blighted areas of Philadelphia. The flowers have brought more than beauty for the eye to enjoy. They have given the mind a new vision to grasp. They have been as a torch to the spirit, kindling in the hearts of the people a striving for a better way of life.

Visitors have come from many sections to see and learn about the garden blocks, and many other cities have already started projects. What has been done in Philadelphia can be done in any town or city in America.

At this point, Mrs. Bush-Brown showed a series of slides, illustrating the Philadelphia program. Among them were a number of "before" and "after" pictures of neighborhoods and streets. Several pictures showed 4-H projects carried on by children under the 4-H Neighborhood Improvement Program financed by the Sears, Roebuck Foundation.

"In this last picture," Mrs. Bush-Brown said in concluding her presentation, "you see a group of 4-H girls and boys at work. Some of these children, in fact many of them, had never seen grass before. They got down and felt it and said, 'It is so soft and so green.' Here you see the praisers of beauty for the next generation. This is an important age at which to provide this influence, because these children are going to grow up with a natural love and appreciation for the beauties of nature. They will be fine leaders, I am sure, in their own generation."

ALLEN MORGAN.* All of you have litter pickup problems, and I am sure that many of you have enlisted youngsters and their parents in your communities to pick up this litter. One of the problems faced by Wayland, Mass., developed into an unusual project—improving its city dump. Wayland has a dump, and to dramatize the problem of litter and bring attention to the dump, we decided to hold an art show there.

What makes this unusual is the enthusiasm it generated. The schools held a series of contests. The Historical Society, Garden Club, Women's Club, and hundreds of people became involved in contributing their art, in producing new pieces of art, in putting the artworks up, and generally in dramatizing the fact that the Wayland dump was an eyesore and the finance committee and selectmen had better get busy and do something about it.

This may seem ridiculous, but it was done and done well to produce action. This is what we needed to stimulate the citizen and to inspire leadership. It gets attention. It gives people like Mrs. Dickerson something to report. I am sure that action will follow.

Mr. RAIDON. The concept of citizen action for natural beauty implies that every American must accept a share of personal responsibility in the crusade to preserve and refresh our Nation's beauty. I hope to emphasize vigorously the significance and the necessity for

*Mr. Morgan, at the request of the chairman, spoke briefly at this point, illustrating his talk with a series of slides. He described a project carried on in Wayland, Mass.

the continuity of an existing program of beautification that cannot be taken for granted. I refer to the prevention of litter as a basic to beautification.

In principle, none of us would put cosmetics on a dirty face. Likewise, none of us likes the appearance of littered lands or waters. We also see better uses for the \$500 million we spend in annual cleanup money, and we abhor fires and other losses from this cause.

It was the personal responsibility concept which helped create Keep America Beautiful, Inc., 12 years ago. KAB is financed by business, industry, and labor. It is guided by an advisory council that includes representatives of five departments of the Federal Government and over 60 of our most influential national public interest organizations of which many of you are members.

KAB's basic objective is to bring to the attention of the American public the damage and blot on natural beauty caused by thoughtless littering and to persuade and educate individuals to assume personal responsibility. The primary problem lies, of course, with people rather than with the things they discard. Litter does not throw itself away.

To achieve its goals, KAB encourages volunteer groups of young and old to cooperate closely with government and civic agencies in the development of responsibility and activity at local levels. As a result, using KAB litter prevention techniques and advice, some 7,000 organizations in all 50 States have benefited from this universal tool of beautification.

Business firms also have activated programs built around special projects like the use of litter bags in automobiles, making available and servicing trash receptacles in recreational areas, block clean-up task forces, educational work with youth groups, and many plantings. Many companies, including my own, conduct annual litter prevention programs in their own communities. These programs include local showings of the excellent antilitter beautification films which are available. In some instances, antilitter guides for schoolteachers and items such as bumper strips and reflective posters for highway truck trailers have been provided.

In support of these efforts, the Advertising Council conducts a massive public service advertising campaign on behalf of Keep America Beautiful. Last year, newspapers, magazines, transit companies, radio and television stations contributed time and space that would have cost \$13½ million at commercial rates.

President Johnson has focused the attention of the Nation on the need to preserve our heritage of beauty. We believe the cleanup of existing litter is a prerequisite to our beautification program. Abstinence from littering is equally essential if the fruits of beautification are to be enjoyed in urban or in rural areas.

I believe several points warrant further emphasis:

1. A continuous program of public education is essential since we surely recognize we cannot count on instant acceptance and practice of any phase of the beautification effort. Experienced friends in the teaching profession tell us that creation of the habit of nonlittering, and thereby recognizing the importance of beauty and cleanliness, is a significant process. Ideally, education will start at an early age and be continuous.

2. Obviously, positive citizen action will be fostered with the availability of adequate collection and disposal facilities in every litter-prone area.

3. Citizen action will flower most profusely with proper recognition and awards to groups and individuals who accomplish commendable projects. Again, here we believe it is important that antilitter work, which can be effectively performed by Boys' Clubs, Boy Scouts and Girl Scouts, Future Homemakers, and Future Farmers, should be recognized with appropriate awards. You will agree that mature folks like recognition and awards, too.

4. Citizen action will support the adoption and proper enforcement of legislation to penalize willful offenders.

Other recommendations are included in the KAB Community Organization Guide, copies of which have been distributed here today. We believe that, properly motivated, every American can become personally aware of his individual responsibility to help insure the success of beautification programs upon which we are embarked.

Mr. TERRELL. It is people who contaminate our rivers and streams. It is people who litter our streets and highways. It is people who desecrate our natural beauty. It will be people—not commissioners—who will plant the trees. And it will be people—not agencies—who will beautify. Natural beauty therefore has to be a people program.

While the White House Conference on Natural Beauty has set the stage and provides the national platform, it will merely be an exercise in rhetoric if leadership is not provided to implement programs

on the grass roots level. We will have an eager corps ready to be led. They want direction, not dictation.

Funds should be provided to existing citizen organizations to establish leadership seminars, providing know-how for those who have the time and desire to do something but lack the tools to do the job. It would indeed be cruel to issue the charge but not provide the ammunition.

Grants should be made to existing citizen organizations to handle these seminars. Such groups have knowledge of problems at the local level. They know the solutions. They are fraught with frustrations because they lack the finances. With funds they can be the stepping stones. There is no need to ignore this wealth of experience.

Given the grants, citizen organizations can establish the beauty brigades to approach the local problems intelligently. They can enhance the chances for success and thereby assure the pride in achievement which stimulates continued activity. Without this leadership tool, we shall give birth to frustration and failure, the parents of inactivity and apathy.

As a corollary, the doers in beautification projects have been and are the women of America. They make up a great many of our volunteer organizations. The National Council of State Garden Clubs, the General Federation of Women's Clubs, etc., have been for decades our "outdoor housekeepers." It is suggested that representatives of these groups establish a women's action committee to follow the First Lady's inspiring leadership by coordinating women's activities in the field of beautification. This would serve to recognize past endeavors by these organizations and to stimulate other women not now active. By the power of their charms, women can also increase the man-hours dedicated to this endeavor.

Beauty is good business. Ask the businessman why he chooses a particular site, and one of his major reasons will be the environmental and cultural opportunities available in a particular community. Business must account for its stewardship not only on the balance sheet but also in matters of social responsibility, such as natural beauty.

One of the first acts to activate business leadership should be a request by the President that his business advisory council elicit the support of top management in our program of natural beauty. Support by top management can lead to results geometric in progression.

Businessmen can in many cases serve as catalysts in instituting new programs. They can:

1. Demonstrate concern by incorporating plantings in plans.
2. Incorporate beautification programs in public relations activities.
3. Assume committee roles and provide manpower with technical skills to assist local groups in implementing projects and programs.
4. Provide recognition awards and incentives to individuals and organizations.
5. Provide demonstration programs which can be emulated.
6. Sponsor films, educational material and advertising; support movies and television programs as public services.
7. Support organizations such as Keep America Beautiful as part of their stewardship.
8. Initiate imaginative programs which best suit their areas of interest. For example, motor companies might sponsor beauty-mobiles or trailers traveling throughout the country equipped with educational aids and audiovisuals to be parked in school yards and playgrounds, providing entertaining beautification programs for our youth.
9. Sponsor programs with youth, i.e., where Boys' Clubs or vocational students make window boxes to be planted by Girl or Boy Scouts with plants grown by 4-H youngsters or Future Farmers.

All or any of these can be accomplished only by working with other organizations. No one has a monopoly on beauty. It is shared by all. All must participate.

Mr. PERLIS. I have a strange and strong feeling that President Johnson's Civil Rights Act, his Anti-Poverty Act, his Aid to Education Act and his commitment to the well-being of the American people, perhaps even more than this conference, will make a profound contribution to the beautification of America.

There is nothing really new about community organizations. We can speak about seminars, and regional conferences, and coordinating committees, and forums, and volunteers, and professionals, and all the rest. The principles of community organization have been applied in many areas, in public schools, medical care, etc., and, of course, they can be applied here, too.

But I should like to speak for a moment about the relationship between the ethical and the aesthetic. Ugliness is pathetic because it is caused largely by men—the greed of some and the poverty of

others. The drive for the "fast buck" will not produce beautiful buildings, nor will corruption in city hall produce a beautiful city. And I am not too sure that the saying that even the poor can afford a bar of soap makes any sense, especially to the poor, who often cannot afford the bar of soap and all too often are too discouraged to use it.

Of course, there are many reasons for different kinds of ugliness. And there are many ways to promote different kinds of beauty. But the essential fact is that the ugliness of corruption within us tends to create ugliness and corruption around us. Ethics and aesthetics, in the final analysis, are interrelated.

If we really want beauty, then we must use the "buck" not to corrupt and not to impoverish, but to beautify and to enrich; and since ugliness, on the whole, is manmade, it can be man unmade. To accomplish this will require vigorous and courageous action on several fronts: political, legislative, social, and educational. This, after all, is what we mean by citizen action.

We mean, first of all, that citizens must exert private initiative and encourage public responsibility through political action, through the enactment of both mandatory and permissive laws on the Federal, State and local levels, with adequate appropriations where necessary, to promote beauty in the city and beauty in the countryside. Professional advisory committees of architects, landscape designers, etc., should be developed.

We mean, second of all, that citizens must encourage, through their organizations, in their schools, and at home, the education of the very young for a deep appreciation of beauty.

If citizen action is going to be effective, there must be a national coordinating committee, with a full-time staff, nationally and regionally, for the purpose of stimulating volunteer action, for the purpose of promoting model legislation, for the purpose of developing educational programs, for the purpose of exchanging pertinent information and for the purpose of acting as a clearinghouse. Such a national coordinating body should work through and with existing organizations concerned with beauty. It should sponsor regional conferences and workshops. There must be a neighborhood-by-neighborhood and block-by-block approach.

It seems to me that now is the time. Man and science have combined to make beauty possible. The time is now, when the grey clouds of poverty and the bomb simply cry out for that silver lining.

The man is President Johnson, whose message on natural beauty is a clarion call to action. And science, through automation, is producing a leisure class with time on its hands.

Beauty has always touched the favored few of wealth, education, and imagination, and it has almost always escaped the many in our mill towns, tenements, and roadsides. It has always been my experience that beautiful ghettos built on power and wealth have been more exclusive than ugly ghettos built on poverty.

Now, in the face of more free time for the millions, there will be more possibilities for creating and sharing beauty than ever existed in the history of mankind. The achievement of this beauty through recreation, education, and the arts requires the highest degree of public service, which means citizen action. Only then will the Great Society become a reality, because the Great Society is a society of hope, scope, duty, and beauty.

Mr. DURNING. I have approached this task with some concern. I once worked here in these halls, and I have a rather healthy respect for the immense trouble one can get into by opening one's mouth in the State Department, but I have now crossed the Rubicon. So here goes.

I mean it, here goes, because I have to change my text on the basis of seeing Mrs. Bush-Brown's pictures and on the basis of Mrs. Dickerson's remarks. I have had to change my remarks because I grow more and more uneasy. Suggestions are coming and they are excellent, but I get the feeling that we are pikers. There will be 230 million more Americans in the second half of this century, compared to 75 million added in the first half. The President has told us we will rebuild America in 40 years. There are 190 million people out there somewhere, and we are talking to ourselves.

The President invited us here, and we received a very nice message from the chairman that I perhaps didn't understand fully. The President invited us to think boldly, and now for the first time I think I have been stimulated in that direction, to conceive the immensity of the task before this conference.

This White House conference has more political, business, conservation, and education leaders than have ever been assembled before to consider what we are doing to the land we live in.

Yesterday and today we received excellent suggestions for Federal, State and local programs. But frankly those kinds of suggestions weren't all new. We have heard about them for a long time. What

is new is the attention being given by the President and by his First Lady to these programs, to the 230 million more Americans, to the ugliness of this land. What is new is the opportunity for 190 million energetic, wealthy, and incalculably effective American citizens to turn their attention and their drive to this task. Let's not underestimate these American citizens.

In Washington State, in 1961, several of us felt a stab in the heart at the billboards along the highways. There was a drive to prevent the blight of those billboards. We went to architects, women's clubs, Democratic clubs, Republican clubs, and dozens of others. Some persons told us it was impossible—attempts like this had been made for 30 years in the legislature of Washington.

Well, thousands of letters poured into the Washington State Legislature. The minority leader received 2,000 letters from his district. Delegations called daily on the governor. Busloads of ladies filled the galleries of the House and Senate. The Washington Highway Advertising Control Act of 1961 was the result, the best law of the kind in the Nation but far too modest to meet the challenge of the highways of America. We still look to the President for assistance in this field.

The next year, in 1962, some of us were a little amazed at what had happened, so we took stock and decided we had underestimated the American citizens of Washington. We were appalled by the growing population and by the possibility of losing the greatest heritage of forested mountains, clean lakes, and open fields of any place on earth.

We started again—this time to raise money and to raise it in unprecedented quantity in order to buy and improve waterfront lands, streambanks, wetlands, game ranges, and city, county, and State parks. The legislators wouldn't do it for us. They were caught in a partisan snare. Everybody thought the other fellow ought to vote for it. We went to the voters again. An initiative to the people was drafted, and a referendum was held. Initiative 215 received over 170,000 signatures, the second largest number of signatures ever obtained in our State's history and (I hesitate to note in the presence of our First Lady) the vote of approval was a little bit better than Lyndon Johnson did in our State.

Before these actions, State spending on recreational land acquisition and conservation was about \$300,000 per biennium. Today we look forward to a program of \$40 to \$50 million of spending in the

next 10 years to buy and improve lands for conservation and outdoor recreation in Washington State.

Let's not underestimate our citizens. They wait for someone to make the proposals that we all know make sense to save this national heritage. Let's not talk any more. Let's not wait for plans. Let's start acting now.

I propose, Madam Chairman, the establishment immediately of a national followup committee with a paid staff after this conference, under the continued leadership of Laurance Rockefeller, which would prepare or obtain the preparation of draft legislation to carry out the proposals of this conference, keep us informed throughout the Nation and assist our various efforts.

Secondly, I propose that the word be carried further through regional White House conferences during the next year, with direct White House involvement, participation by the State governors, and cosponsorship through the national followup committee and regional groups to be formed by all of us.

Regional or local groups should not be new organizations, but specifically ad hoc campaign committees, uniting and working together with and through existing organizations. There is no one formula. Figure out your own way, but let's not spend a lot of time drafting constitutions, writing bylaws, and debating the goals. Let's just assemble a group of people. You, you folks who came from the same State or city, sit down and elect a chairman and start acting.

President Johnson assembled us. Pardon me, for this isn't intended as a partisan remark, but under our constitution his leadership can only last through 1972. We should make the most of this time. Let's get started now. Let's have those bills ready for this season of Congress, and let's be in there testifying and get these things passed.

Let's bring this White House conference to the home of every American. Every campaign needs a kickoff. I didn't have the idea of the kickoff—until I heard from some of the other panelists—but, with apologies, they are pikers. I am sorry Mrs. Dickerson left, for I do not want the networks to pass the buck to the local television stations. The President and the national follow-up committee should call on the major television networks for a hard-hitting national documentary to be shown on prime time, to show all Americans what we have seen here, so that Americans can see with their own eyes the ugliness there is in America and a vision of what a truly beautiful America could be.

This national prime-time television documentary should be only a start. It should be followed up by the local television media looking around themselves in their own areas and producing their own documentaries about local needs.

Furthermore, I propose something else to reach every American. I propose that a first-class picture brochure carrying a personal message from President Johnson and our First Lady be distributed to every American home, to every slum basement, penthouse, and split level, and to every home of rural America. The utility companies—telephone, gas, and electric power companies—serve all of us, and we support them. Perhaps we could ask them to help in the preparation and distribution of such a message to Americans.

And then, let's not forget the most efficient free distribution system in America—the school children for whom we seek to save and restore the beauty of America. They can take the message home. It is their America we are working for. Only by such steps can almost 200 million Americans see with their own eyes what this conference is talking about and envision the possibilities of a truly beautiful America in a Great Society. Only in this way can the citizens of America begin that crusade and take hold.

Ladies and gentlemen, when we go over to the White House Rose Garden in an hour or so, let's tell the President and the First Lady our recommendations as to what they can do to help us. But let's also say something else. Let's just turn around, shake hands with each other and say, "I enlist, I volunteer, I am going home to get to work."

I have talked to a number of others from my State of Washington. Washington is ready.

Mrs. WHITTEMORE. The accumulated experience of the League of Women Voters in its work on water resources, one of our two major national program items since 1956, and the experience of our State and local leagues working on water, on parks and recreation, on regional planning and related subjects, indicate that there will have to be a tremendous amount of citizen effort in gathering and disseminating information on local and State problems of ugliness, and what can be done about them.

In some cases the initiative will come from executive, administrative or legislative leaders, but in other cases it will be citizens who will prod officials to initiate programs. In every case, citizen orga-

nizations will have to perform a large part of the necessary public education, mobilize support, express it where it will count, and stand up to heated opposition if programs are to be undertaken to implement the goals of this conference.

Citizen action will be needed not only to initiate or to back programs, but to support needed appropriations, continue to interpret programs to the community and to defend them against attack from special interests such as developers, outdoor advertisers, etc. Nowhere will citizen understanding and support be needed more than in backing enforcement of pollution laws, zoning ordinances and some of the newer types of regulations such as land use and sign controls, all of which must be accepted if we are to have a beautiful America.

For these reasons, I want to underline the need for a National Citizens Committee for a Beautiful America to stimulate a joint effort by many groups, to provide the tools they need, to keep them informed, and to coordinate their efforts.

I want also to stress the need for wider acceptance on the part of governmental agencies and professional planners and engineers of the appropriate role which citizens must play in choosing goals and accepting the costs of achieving them. To carry out these functions, they need to be involved at an early stage, not asked to rubber stamp a final plan. Some government agencies are alert to the opportunities this offers.

Citizen groups also need the help of nongovernmental experts from universities and elsewhere. They need grants from foundations or governments if they are to carry out citizen education programs, such as one in which I have recently participated. This is the Schools for Citizens on Land and Water Use for Tomorrow's Living, a current pilot project of the LWV Education Fund under a demonstration grant from the Division of Water Supply and Pollution Control of the Public Health Service.

Citizens can be more effective on river basin, metropolitan, or regional problems if they establish citizen organizations matching the boundaries of such logical planning areas.

Questions and Discussion

KENWARD K. HARRIS. I had a short report to give to you in regard to Potomac Pickup Day, Sunday, which was held to help beautify the area for you delegates from elsewhere in the country.

In many of the presentations made here there are so many ideas for beautification projects that there should be some mechanism for clearing ideas—an idea clearinghouse. To have a Potomac Pick-up Day, I had to get to Smith Rairdon's office in New York to come up with the idea and the mechanics. I think we ought to evolve a clearinghouse for these ideas if we can.

Mrs. FRED MAUNTEL. I would like to make an announcement I made earlier: The National Council of State Garden Clubs plans to hold a conference at Jackson Hole, Wyo., from September 3 to 8. The theme of this conference is to be "Natural Beauty, the Follow-through." And we will really follow through with the recommendations coming out of this White House conference.

We are pleased that Mrs. Johnson is going to be a speaker at this Conference. We would like all of you to come too, in September, and join us at this Natural Beauty Follow-through Conference.

GLESTER HINDS. I recommend that this conference go on record to eradicate ugly neighborhoods, by moving as follows:

1. Allocate funds to fix up existing slum areas.
2. Build middle-income and low-income housing together on present ugly housing sites.

Rev. Warren Ost. There are many clergymen here from many different States. We believe this is the kind of thing you will find the churches giving the moral and spiritual background that you need to carry out this kind of a program. Speaking for the churchmen who are here, we want you to know that we stand behind you with the ethical and moral resources of religious belief in this kind of movement in America.

Statements Submitted for the Record

ERNESTA D. BALLARD. Mrs. Whittemore's fine report to the conference included a recommendation that a professional advisory council be set up to help the various governmental bodies carry out their work of beautification. The list of professions and specialties from which competent individuals should be picked did not include horticulture. This would be a serious omission in view of the fact that just about all of the natural beauty in urban and suburban areas

falls within the competence of such personnel. I hope that this list will be amended to include professional horticulturists.

ROBERT W. CRAWFORD. I recommend that the President urge every political subdivision of government to appoint a Citizens Committee on Beautification. These committees should work with government departments, business and civic groups, and with individual citizens for a united attack on problems affecting a beautification program.

PHILIP FARNSWORTH. The eight members of the California Redwood Association in San Francisco are substantial owners of commercial timberlands in the redwood region. Perhaps you will be interested in this instance of citizens' action.

These redwood owners have, in recent years, been studying means by which the recreation values of their lands could be made more available to the general public and feel that it is particularly appropriate to bring plans to a head in time for this conference. Together they have pledged nearly 300,000 acres of beautiful redwood forest areas to various public recreation activities this year. They have invited the cooperation of such groups as the California Wildlife Federation and other public and private agencies in their planning for the future.

Capt. W. L. GUTHRIE. Planners of the White House Conference on Natural Beauty found it impractical to include a panel on the problem of air pollution. Yet, we know that dirty air often obscures the natural beauty of America.

The public is acutely aware of the existence of air pollution in a number of urban centers where the smog problem is well publicized, and because of this awareness has demanded action programs to clean up the air. But the public is not generally aware that there exists nationwide a blanket of dirty air which moves with major weather systems. This blanket of pollution detracts from the natural beauty of rural America in areas thousands of miles removed from the sources of pollution.

The U.S. Weather Bureau erroneously reports smoke, and the obscurity produced by it, as haze. This faulty reporting is picked up by radio, TV, and other news media and repeated to the public. Technically, haze is salt crystals and dust—nothing else. The haze of television weather reports is usually not salt crystals and dust; it is smoke.

Citizen action is based upon citizen awareness, understanding, and concern. It seems certain that, were the public aware of the magnitude of America's air pollution problem, it would demand effective remedial action. I therefore suggest that this panel recommend to the President that the U.S. Weather Bureau be directed to report smoke as smoke, rather than as haze. This would help build the public concern necessary to citizen action.

R. H. HACKENDAHL. This is a statement from the National Bureau that represents over 6,500 cities and towns through the United States and their respective cleanup and beautification programs, as well as statewide efforts in over half the States in this country.

Whereas the National Clean-up Paint-up Fix-up Bureau sponsors the oldest civic improvement program of its kind in the country that dates back to 1912, and,

Whereas the National Clean-up Paint-up Fix-up Bureau works with more communities, volunteer organizations, Federal, State and local agencies in the field of community improvement, beautification and other clean-up endeavors than any other national program in the United States, and,

Whereas the National Clean-up Paint-up Fix-up Bureau, in line with the President's Message to Congress on Beautification, and as a result of attending the White House Conference on Natural Beauty, recognizes that these programs must be geared to local participation, regardless of the size of the community, and,

Whereas a program of action must be developed as a continuing force so as not to have the momentum generated on the national level by these two programs deteriorate, be it resolved that:

1. There should not be another Federal agency, bureau, department or commission formed or appointed with budget, staff or headquarters charged with the responsibility of implementing national beautification programs. Rather, the President of the United States should appoint a Citizens' Advisory Council composed of representatives from leading national organizations that already have programs in being, and, thus can speak with authority and experience regarding the implementation of national, statewide, countywide and local beautification programs. Professional and/or industry groups should not be represented since they tend to limit the scope of their activities to their respective interests. There should also be a representative from each State responsible for a statewide beautification program.

Thus, this Council would consist of approximately 75 people that have the tools, lines of communication, experience and purposes to carry forward a program of national beautification. They would serve without pay and no office facilities or staff would be provided. Rather, they would use their own existing facilities to conduct the business of the Council.

The Council would meet at least four times per year, with standing subcommittees and study groups, in a research program of common interest. At the conclusion of each meeting, they would report to the President their program of action and recommendations, and, when necessary, departments of Federal Government would be called for council and advice.

2. The governor of each State appoint and establish a similar statewide beautification commission charged with the responsibility of implementing county and local beautification programs. These commissions would have representatives from statewide organizations, State agencies and individuals who have the experience and interest in developing extensive beautification programs throughout the State. The value of these statewide programs, that in turn reach local communities, would be a regeneration of civic pride and responsibility, the attraction of tourism dollars, and the vehicle whereby new business and industry would be attracted. This also would reduce the costs of city services related to those areas that have a high degree of health, fire and safety hazards and, in turn, would be a program for rehabilitation and would increase property taxes as blight is stopped.

KENWARD K. HARRIS.* I am gratified to have the opportunity to present to this panel a concrete example of a type of citizen action which we have been discussing in theory here today.

Sunday, May 23 was proclaimed Potomac Pickup Day in the Washington metropolitan area with the express hope that it might provide just such an example for this panel. I am enclosing a copy of the proclamation as issued by the Commissioners of the District of Columbia.

The Potomac yielded a good catch of trash and litter. Some 280 participants collected over 540 person-loads of litter. The catch included floating and submerged navigational hazards, the usual

*This is an extension of remarks made by Mr. Harris during the panel discussion.

assortment of bottles and tin cans and even debris brought up from the bottom of the river by scuba divers.

We trust that citizen action of this sort will continue to highlight public concern for natural beauty. Though citizen action in the Nation's Capital may be peculiar unto itself, our Council would appreciate the opportunity to exchange ideas and plans with other groups interested in similar goals.

Mrs. JOHN W. HENNESSEY, Jr. In New England we have faith in the notion of the town meeting and I would like to suggest that this is one way citizens can effectively make known what kind of community they want for themselves and their children.

Following a School for Citizens on Land and Water Use for the Connecticut River sponsored by the Education Fund of the League of Women Voters and financed by the U.S. Public Health Service, representatives from 10 towns on both sides of the river in Vermont and New Hampshire are calling town meetings called VOTE, Vote for Tomorrow's Environment. We are tired of fighting unnecessary interchanges, billboards, and riverside gravel pits when it is too late to stop them. So we are systematically identifying our scenic areas, unique natural features, historic sites, and recreation sites. We are also evaluating the water in our river and its shore, our townscapes, and our roadsides.

After the town meetings, we will meet as a regional group to adopt priorities for preservation and recommendations for our local citizens, their clubs, and their selectmen. Because we are convinced that natural beauty in New England is not an amenity but an economic necessity, we will present our inventories, our regional plan and our recommendations to the State agencies concerned with planning, forests and parks, agriculture and highways and to the Connecticut River Federal Study now underway. We think we will have developed a citizen consensus that will be of use in preventing blight and preserving the values which have been so well described at this conference.

Other towns or regions interested in holding such citizen inventories may find the materials and procedures we are using helpful. They may be obtained by writing the Hanover Conservation Council, Hanover, N.H.

LESLIE LOGAN. The Arlingtonians for Preservation of the Potomac Palisades is a citizen group, which in 15 years has succeeded in preventing high-rise apartments and commercial encroachments

along the Potomac Palisades. This area is now, however, seriously threatened by an unnecessary \$60 million interstate highway project.

In nearly two days of conference, we have heard little reference to the President's wish to make the Potomac a conservation model for the entire Nation as expressed in his policy guidance paper on conservation and specifically singled out in the message that initiated this very conference. We hope this panel will specifically express its strong support for making the Potomac a conservation model in its recommendations to the President and that it will call upon all governmental agencies involved to devote all efforts to that end.

The Potomac River and its shores are rich in historic, natural and aesthetic values. Citizens all over the United States should be able to look to this area as a model of irreplaceable natural beauty and conservation. This should be the national kickoff for conservation of our country's beauty.

Mrs. EVELYN LOWENSTEIN. Fall River's Civic Beautification Commission was set up last August by Mayor Roland G. Desmarais to bring about a new image and better environment for a city that, like so many former cotton mill towns, had more than its share of ugliness.

The problem actually was twofold: Fall River was—and is—undergoing the shattering impact of a Federal highway being bulldozed and dynamited literally through the heart of the city.

With the establishment of the Beautification Commission, however, it became possible for citizens to become involved in a large-scale effort to upgrade the appearance of the city, even while enduring the necessary dirt and confusion of highway construction.

The key word is "involvement." The Commission works to motivate the population to motivate itself in the task of appearance betterment, on the assumption that such a program will succeed only with grass roots approval and participation.

The function of the Commission is to approve ideas, to coordinate projects and overlapping civic and municipal agencies, and to make available for consultation professional advisers in the fields of architecture, city planning and horticulture.

It works to stimulate the individual citizen to improve and beautify his own habitation and property, to encourage groups to work for city improvement, and to teach young people to be part of the beautification effort.

Results of such a program—so new—sometimes cannot be immediately visible, since trees and shrubs don't grow overnight.

Flowers sometimes do, however, and June 3 will be "sidewalk flower box" day for Fall River. Under this plan, developed by the Commission and adopted by the Merchants' Division of the Chamber of Commerce, four-season flower urns, 2½ feet long, will bloom in front of the property of business firm subscribers along main streets.

For the annual fee of \$60 an urn, there will be seasonal plantings and upkeep: spring, summer and autumn flowers and winter evergreens.

Flowering trees blossomed this spring on many safety islands, and work is continuing to promote a parkway effect, through plantings and traffic control, on the city's most heavily traveled thoroughfare.

One of the most popular projects is that of industrial landscaping. The Commission provides professional designers to advise the project, and the firm requesting the help underwrites the cost of landscaping.

Firestone Rubber & Latex Products Co. agreed to lead the way, and now about eight other businesses and firms, including a shopping center and a factory-located outlet, have requested the service.

The First Baptist and Unitarian Churches have also enlisted in the landscaping program—an example, it is expected, that other churches throughout the city will emulate.

Under the designation "Operation Spruce-Up" the Commission this year is carrying on a concentrated cleanup campaign, with the emphasis on youth participation and neighborhood groups.

The project enrolled several civic organizations as well as property owners and the campaign has been extended into a third week.

In the blueprint stage are plans for the creation of a park and picnic and parking areas adjacent to the memorial site of the U.S.S. MASSACHUSETTS, now being demothballed at Norfolk, Va., and soon to be returned here where she will be berthed at the State pier. This will be part of an over-all waterfront development along the Taunton River.

A down-at-the-heels playground is about to be reclaimed to illustrate how to return wasteland to beauty. The area, overlooking the riverfront and Mount Hope Bay, will be landscaped.

A Trees for Fall River program also is being lined up by the Fall

River Electric Light Co. to preserve natural beauty through controlled planting and care of trees on a citywide basis—also the creation of a city nursery located on the city reservation with labor furnished by the antipoverty program.

Youth involvement is given high rating by the Commission. A Youth for Community Improvement Committee has been organized for the purpose of interesting entire neighborhoods to take part in the expanding beautification program.

Schoolchildren also have been asked to start a self-indoctrinating program in beautification. The school committee presently is attempting to devise an education venture, but, at one school, the young students didn't bother to wait for official action. They read about the program, voted immediate participation, collected over \$100 in two weeks, ordered plants and trees, and got them in the ground. Their school already has a new look.

CLARENCE E. MORAN. The Municipal Beautification Commission of Charleston, W. Va., was established by ordinance of city council, September 19, 1960, and charged with the duties of advising and recommending to the mayor or council such programs or projects as would in the opinion of the Commission improve the beauty and general welfare of the city of Charleston. Mrs. Howard A. Swart is chairman of this Commission and has asked me to submit this statement.

Each fiscal year since the date of its creation, this Commission has been funded in the official budget of the city with suitable moneys to carry out its duties.

In the succeeding five years the Commission has directly executed major landscaping and beautification projects along two of the city's major roadways, and upon the grounds of two major public buildings. Numerous smaller landscaping treatments of public ways were accomplished as projects of the Commission, or of local garden clubs and service groups under the auspices of the Commission. Other accomplishments included action by the Commission which led to an ordinance to improve the appearance of parking lots, more effective enforcement of laws against derelict roadside buildings, and participation in the forestalling of intrusive, noncompatible developments adjacent to important public buildings.

The Commission, through a subcommittee on "The Cityscape," produced a series of recommendations to appropriate public bodies for control of visual ugliness such as billboards and junk car lots and

positive programs such as preservation of the city waterfronts, zoning protection of public buildings, and special zoning districts such as those at the city's gates, etc.

The White House Conference on Natural Beauty will provide a long-awaited impetus at the national level towards coordinated efforts in the areas of concern. The efforts of Commissions such as ours are halted at the municipal boundary line. It will be well and good for our cities and our Nation, through the leadership of our President and the Federal Government, if our townscapes can retain and reclaim their special features of urban beauty, if the great American countryside can be restored and preserved, if our highways can be made a pleasure rather than a visual obstacle course to the driver-viewer, and finally if, through education and the partnership of local-State-Federal concerns, our people will enjoy and be strengthened in spirit by the unique quality of beauty in nature.

Mrs. RALPH A. REYNOLDS. Citizen support of legislative and administrative action for environmental beauty can be effective only through organized joint effort. Without such organized joint effort, the influence of individual citizen groups is relatively poorly financed, scattered, and weak.

In California, such a coalition has just been organized, embracing planning, conservation, beautification, and certain professional groups (such as the design professions). Individuals also may be members. The joint organization is called the Planning and Conservation League for Legislative Action.

By joint use of funds, a year-round lobbyist (we hope) can be maintained; by joint study, evaluation and priorities can be agreed upon in relation to State legislation; by force of numbers united, the league wields far more influence than would the unorganized sum of its parts.

We suggest that this conference recommend such organized joint action on the part of citizen groups in all States. Furthermore, in order to gain adequate financial support, nonprofit, nonpartisan citizen groups whose objective is environmental beauty should be given advantageous tax status so that they can obtain tax-deductible grants from foundations and other large donors.

WARREN ROGGMAN. Five-point-six (5.6) square miles of America seem too insignificant to highlight at this conference, yet what has happened there is happening everywhere in our country.

In the past ten years, our township has lost its rural shape and is, at this moment, passing from a suburban to an urban complex. Building pressures have consequently had their impact on zoning and planning board decisions.

Raritan Township is currently acquiring some 170 acres of open space. We have the concurrence of county and State planning agencies and have received grants-in-aid (20 percent) under title VII, section 701, Open Space Provision, in addition to New Jersey's 50-50 matching fund under the 1961 Green Acres Act.

My point is this: evolution in our program was slow; our board saw the need only when it existed and was pressing. Our plans are not designed to get ahead, but only to catch up. Catching up is now costly. Many areas of natural beauty and virgin woodland are gone forever.

I urge that special emphasis be given to educating and informing the policymaking nonprofessional planning, zoning, and recreation boards in the more than 100,000 towns and hamlets in this country. The interested citizens who comprise these policymaking boards need information and education to make them effective—to give them the necessary foresight.

Towns and hamlets make up our counties and the counties form our States. These small municipalities are the battleground on which the open space and natural beauty issues will be won or lost.

E. G. SHERBURNE, Jr. I feel that the recommendations made by the panel on Citizen Action were most worthwhile and commendable. However, the scope of their considerations was too limited to permit significant impact on many of the problems which the natural beauty program will face.

The Citizen Action panel dealt with certain well-defined problems where the difficulty lies almost entirely in obtaining action—control of billboards, hiding auto junkyards, or beautification of city slums. As a result, the main theme of the panel seemed to focus on the means of getting the public and Federal, State, and local governments to act.

The major problems in citizen action for the natural beauty program lie, however, in areas which were not discussed by the Citizen Action panel and which were only touched upon by the Education panel. These problems require action which involve decisions to act, evaluation of complicated alternatives, and the possible costs and benefits of each as well as technical skills to carry out or super-

wise programs. A program of chemical spraying or the multiple use of a wild area are typical of the second kind of action. These do not permit simple yes-no answers, and the action which they require is far more complicated and subject to differences of opinion and interpretation. In addition, and very importantly, these more complicated problems require some knowledge of science in order for the citizen to deal with them in any intelligent manner.

I would suggest that the thinking of the Citizen Action panel has been based on the assumption that most of the action which needs to be taken in the natural beauty program is of a very simple type, and that, therefore, the principal problem of citizen education is to sell or to motivate, rather than to teach.

I would further suggest that the considerations of the Education panel were also too limited, being confined mainly to the results of the uses of science today rather than to an understanding of the science which has brought about these results or which will be an essential element in providing the solutions.

A vast number of the problems which we face in carrying out the goals of the natural beauty program do require some knowledge of science and technology on the part of the citizen, both in the decision phases and the action phases. For example, the question of highways is not simply a question of where they go (although the discussions might have led one to that conclusion). The solution to the highway problem is undoubtedly going to include considerations of such questions as alternative ways of "people moving," from vertical takeoff and landing aircraft, to moving roads, and what contributions, if any, they can make to a more desirable situation.

Other issues involving a need for technical understandings include: the wise use and control of pesticides, flood control and irrigation, water pollution, and all of the questions of disposition of wastes including radioactive materials, air pollution, and the control of effluents (including auto exhausts), natural versus introduced plants, and the multiple use of natural areas. All these and many others face us in addition to the relatively simple problems posed by billboards, auto junkyards, and urban beautification.

We must therefore recognize that citizen education, particularly in science, should precede intelligent citizen action in many areas. Certainly, we cannot expect the public to be competent in the specialized aspects of science, but we can think in terms of a public familiar with some of the big concepts, with some idea of scientific

methodology, and with some comprehension of the limitations of science.

We must further recognize that we cannot put our hopes completely into improving science education in the schools. For the total accumulation of scientific knowledge is doubling every 10 years, and the time between discovery and application is decreasing. Thus, no matter how good the schooling, much of what the citizen will need to know will be discovered (and therefore can only be learned) after the completion of his formal education.

I, therefore, urge that plans be made for a program of continuing citizen education in science as the essential prerequisite for the citizen action that will be needed in the years to come. The only alternative is to relinquish the job to the experts, something which is unthinkable in our democratic society.

The task is admittedly tremendous, but we must face up to it if we are to have the effective and intelligent citizen action which we need on all aspects of the natural beauty program.

Mrs. JEAN TOKAREFF. While large plans for parks, civic improvements and such are being developed, people need everyday action. Just touched upon was the tremendous resource of men and women volunteers who want a good life for their families and their neighbors. The volunteers' contact is almost wholly with individuals, families, and homes.

Some volunteer groups, particularly youth groups (the Scouts, Campfire, 4-H, and others) already have beauty, nature, out-of-doors, and recreation in their programs. Others such as the music and art societies, church groups, and service and fraternal groups could adopt beauty as a project. The Parent-Teacher Associations have well been named the largest volunteer organization in the world.

I would suggest that a letter from Mrs. Johnson be distributed by the millions to reach all citizens everywhere. This would be real nurture for the home roots of the people.

Dr. J. HAROLD SEVERAID. Sacramento County, Calif., has at least three excellent examples of extremely effective citizen action groups. In fact, the county won an honorable mention in the 1964 All-American City Awards competition because of it. They have SPARC (Sacramento Planning and Research Committees) and SARA (the Save The American River Association), both of which devote their time to problems of the type discussed at this conference. The former tries to implement good planning of all types at all levels. The

latter is constitutionally restricted to helping the county government to implement its 23-mile-long, 5,000-acre, American River Parkway Plan. It is as President and Chairman of the Board of Directors of SARA that I received my invitation to this conference. I need not dwell on the details of SARA's "Operation Star." They have been well documented in *Sunset Magazine's* October 1964 issue, pages 30-39, and also in "County Action for Outdoor Recreation," first edition, 1963, page 24, pages 37-39 published by CORC and the National Association of Counties early in 1965, and Action for Outdoor Recreation For America, first edition, 1963, page 24 and the 1964 edition, page 25, both published by CORC.

I need only point out here that one man's dissatisfaction and action in February 1961 resulted in the formation of SARA which on May 21, 1965, had 3,152 life members and 108 cosponsoring organizations. The organization won a citation from the National Recreation Association in 1964, among other honors, and has been publicly credited by the Sacramento County Board of Supervisors as having effectively saved, and won, their American River Parkway Plan.

This was a case where a private group did recognize the value of their water resource (as was called for by Mr. Caulfield) and very effectively did something about it. Thus, it strikes me as being a choice example to illustrate what a citizens' group can do when they set their mind to the task and proceed intelligently. The techniques used by SARA should work anywhere.

Citizen action groups should serve as the second party in a two-party system, the first automatically being private owners, developers, and sometimes paid public employees. When the voice of the citizen action group becomes equal or greater than their opposition, elected officials will normally respond positively to the dedicated demand. Citizen action groups can serve as a check and balance system between government and despoilers.

Mrs. RALPH CURTIS SMITH. The Green Bay, Wisconsin League of Women Voters procured an Air Pollution Ordinance in 1950 after five years of work. We have continued and enlarged the program in the last six years through the formation of the Mayor's Committee, a voluntary organization made up of representatives from service organizations, labor, and volunteers, with the advice of our department heads in city government.

We have reduced our dust count from 75 tons per square mile per

month to 18 $\frac{2}{10}$ tons in the downtown area. Our paper companies have stopped putting sulphite liquor into two rivers. The collected fly ash is used commercially. We have had our river banks cleaned and beautified with the help of the Outboard Motor Club. I want to stress the point that all this was done on an expenditure of \$50, half of which came from the Green Bay, Wisconsin League of Women Voters and half from the Business and Professional Women's Club.

Industry is wonderful if you force or encourage action.

Ten thousand children in our park recreation program signed the Litterbug Pledge. Parks compete for cleanliness prizes. They are beautified by the city. Litterbug poster and slogan contests are conducted. Children clean our historical markers for Kiwanis Club prizes.

All organizations belonging to the Mayor's Committee for a Cleaner and More Beautiful Green Bay have projects which they get credit for. There is fine school cooperation. We try to educate the parents through the children. We won a 1965 National Municipal League-Look Magazine All-America City Award this year. We are very proud of that honor.

The Rt. Rev. CHANDLER STERLING, Dr. PAUL DOUGLASS, and the Rev. WARREN W. OST. The National Council of the Churches of Christ in the U.S.A., through its interdivisional Task Force on Leisure and its Commission on A Christian Ministry With People in Leisure-Recreation, on the occasion of the White House Conference on Natural Beauty, May 24-25, 1965, recalling that "the earth is the Lord's and the fulness thereof" and addressing itself to the encouragement of the President of the United States to activate private citizens in their own efforts, restates its commitment and states:

1. That the church is, by the obligation of its mission, both concerned with and involved in the movement for the preservation of natural resources, as our President has said, "to the inner prosperity of the human spirit."

2. That the accelerating tempo of urbanization, which deprives man of the beautiful, summons the church to meet the call for the creation of beauty which our heavily industrialized society in the era of advanced technology so desperately needs.

3. That because the performance of our free economic system provides increasing guarantees of disposable time, money, and energy,

the church has a concern for the choices which man makes in the use of these resources.

4. That as the war on poverty proceeds to enfranchise multitudes of our fellow citizens economically the church has the mission to shape its programs to the demands of the times to develop souls which are strong in their power to guide men's lives.

To this end the National Council of Churches through these programs reaffirms action objectives:

1. To carry forward and enlarge its ministry to the thousands of our citizens who visit our national parks and recreation areas. Some 225 pastors from 24 different denominations already are being assigned to duty in national parks and recreation areas for the summer of 1965. Over 1,600 trained church leaders in communities all over the United States have served in this capacity since 1952.

2. To work with church groups of all denominations at local, State, and national levels to carry the ministry to all points where our mobile people sojourn in leisure to respond as a part of nature.

3. To hold regional conferences for church leaders throughout our land to inform the leadership of the church and mobilize its resources in every neighborhood of our land.

4. To encourage the members of the church to participate in community action groups for the "new conservation" at national, regional and community levels.

5. To cooperate with bureaus of church building and architecture to stimulate creative forms of church architecture including the beautification of church landscape and the cleanup of church properties and cemeteries, and to encourage basic research along these lines.

6. To shape by imaginative innovation, patterns of the Christian ministry and education which will unite men with God as man restores natural beauty to the purity of God's creation.

Mrs. GEORGE P. WILLIAMSON. The Biennial Convention of the League of Women Voters of Vermont adopted a project, "measures to protect Vermont's scenic and natural resources, while developing its economic potential." As chairman of the project, I propose to break down League activity in this field into the following areas of study.

1. Lake Champlain Committee (to cooperate with INCO-CHAMP).

2. Connecticut River Basin Committee (to cooperate with Connecticut River Watershed Council, Upper Connecticut Valley and

other agencies). Starting in the fall, a series of slides, both good and bad, of the Connecticut River, together with a prepared talk on conservation, will be distributed to Leagues for public showing throughout the State.

3. Scenic Committee to include recommendations on junkyards, billboards, scenic roads, etc.

4. Legislative Committee to make available to League members a report on conservation legislation to date, to inform them on proposed legislation, and to support and help form legislation as a result of study in other committees.

5. Planning Committee to cooperate with Central Planning Office to study the office's work, and support it whenever possible.

6. Coordinating Committee. Chairman of each committee to report periodically to planning chairman, coordinate efforts, make recommendations, etc.

It is hoped that this work of the LWV of Vermont will be combined in a series of reports and recommendations in line with the League's tried and proven method of study-consensus-action, and that these will be distributed to all its 800 members. It is also hoped it will be given to certain elementary and high school classes as a start for study, and that the children who read them will be encouraged by the LWV to make recommendations of their own for the highest and best uses of land and water.

It is interesting to note that it was from the recommendations of high school students that Britain was able to conduct its excellent land use methods schemes during World War II. Perhaps a student citizenship award for the best essay in this field could be arranged, along with other ways of making the public aware of the urgency of our message.

Mrs. J. M. P. WRIGHT. Historic preservation is creating beauty in our town, by landscaping urban areas as well as restoring houses and neighborhoods. We need more resources to explain the economics of beauty to city officials, land speculators, and the financial power structure of our community.

FURTHER STATEMENTS SUBMITTED FOR THE RECORD

DANA L. ABELL. The American conservation movement has proven itself especially weak in preserving the beauty of whole landscapes. The National Park Service is, of course, to be commended for its activities in preserving points of special scenic interest and, in some parks, in presenting sizeable areas of wild landscape. Their efforts to recreate or commemorate great places and moments in history have been especially successful too. Similarly, U.S. Forest Service management operations are maintaining certain mountain and forest landscapes for us in admirable condition, most notably in the public-land States.

The great lack at the moment is a device to assure that the farm landscapes which have done so much to shape American character and can continue to do much to inspire our people, can be maintained in a condition which will speak clearly and forcefully to us of this important part of our heritage. Farm landscapes which are especially notable for their role in American history and for their character-molding beauty could be preserved from abandonment or from commercial-residential encroachment by the establishment of National Rural Scenic Preservation Districts which could subsidize economically weakened agriculture and provide advising services, planning, and controls relating to management and alterations that could affect the scenic values which the land contains. Lands would remain in private hands and tourist use would be channeled and directed in ways that could yield maximum scenic advantage to a steadily more appreciative public.

A second way in which the Federal Government could aid in the maintenance of the quality of outdoor recreation might be through the encouragement of States to authorize Recreational Development Districts. These would be local jurisdictions charged with directing the development of both private and public recreational

services in predominantly wildland areas (e.g., the Asheville Basin of North Carolina or Plumas County, Calif.) where most scenic resources, and especially the scenic corridors along virtually all roads, are in private hands. The district could aid in financing high quality recreational developments, control the clutter associated with servicing the public and with drawing them to the area. The district could hold lands sufficient to provide minimal outdoor recreation services and to give a sense of openness and freedom to the experience of visiting the area. It would be the primary planning agency for the area and would, at the same time, furnish the promotional staff, providing what is most desperately lacking in private outdoor recreation—tasteful development and publicity.

Administratively, there are many precedents for such districts, but the nature of its interest and orientation appears to be new. As a precedent for the attitude it might display toward its user public, I would suggest the tourist agency of the Province of Nova Scotia where the European quality of complementing the taste of the visitor and genuinely welcoming him to the vacation areas is magnificently demonstrated.

Between them, these two new types of special districts could do much to strengthen our national campaign to build beauty into every aspect of American life.

ALAN ARMSTRONG. We in the United States and Canada share a continent, and many of its most beautiful mountain ranges and rivers. The Canadian conservation movement, like the American, owes much to a White House conference of 57 years ago. Looking ahead, we may count on more millions of trips across our borders to each other's beauty spots every year. Our continued enjoyment will be insured as we learn together how to safeguard our common heritage. In this we face the same hopes and hazards.

Both countries look to rapid growth, concentrated in cities. The building components needed to accommodate this growth will be made en masse, which means in repetitive Euclidean shapes. Every day there will come to be a higher scarcity value in the local, weather-worn, unique, and changing forms, textures and colors of America—sky, water, hillside, trees, sun-hot earth between bare toes—in short, in natural sensations. Yet there will be more free hours in every year for their enjoyment. So each town or city will best fulfill its own personality by enfolding reminders of its natural and human history within its angular new framework.

Outside the cities, better ways will have to be found to receive in the countryside the broadening streams which will flow out along the highways. Unlike past generations, these folk will almost all be city-bred. They may have to learn deliberately how to deal with open space and growing things, just as the open space will have to learn to deal with them. Skills of usage may have to be imparted to the millions of users—and also to the thousands of designers, owners, maintainers—of ex-urban space. Much of this learning can be developed in the tests and trials which the Job Corps and Neighborhood Youth Corps are about to enter. Surely anyone who planted shrubs or picked up litter for a few weeks in his youth will care more about both for the rest of his days. We may try the same in the Company of Young Canadians.

This teaching and practice of fragments of skill and awareness in the presence of natural beauty can be built up to a wide concern and loyalty to our precious common domain. Once that begins to happen, the natural treasures of North America will enlarge, and never again diminish. This I think is what Whitman sang of—and Thoreau, Louis Hallé, Rachel Carson. It is the "land ethic" of Aldo Leopold. The educational challenge is to knit the needed skills into this basic kind of understanding.

The President's bold idea for the conference, the insights and experience brought to it, and the generosity with which citizens of other countries were asked to join, merit gratitude for the opportunity to learn together, and high optimism for the "new and creative conservation."

Dr. IRSTON R. BARNES. The three panels on the highways demonstrated an almost complete failure on the part of the conservationists to establish communications with the highway officials and engineers.

The highway officials are, it would appear, sincerely committed to making our highways more attractive as highways. They will make every effort to improve on the aesthetics of highway design; they will devote substantial funds to landscaping and plantings; they favor control of litter and some suppression of signs and billboards.

All of these efforts to beautify the highways are fine, but they are not fundamentally concerned with natural beauty.

What the conservationists want is complete assurance that highways shall not be destroyers of natural beauty as they have so often been in the past. This assurance is critical in view of the announced

program for extensive scenic highways reaching the parks, the national forests and other areas of natural beauty.

It is imperative that no highway be built without a prior evaluation to assure that no area of natural beauty shall be needlessly destroyed. It is absolutely imperative to exclude highways from those areas where a highway would destroy the natural beauty which the highway would seek to exhibit. The prime horrible example of the capacity of a highway to destroy the natural beauty it is designed to reveal is afforded by the National Capital Parks' George Washington Memorial Parkway, which has wholly destroyed the natural beauty and the recreational values of the most intensively used portion of the historic Chesapeake and Ohio Canal. (It is not too late for this administration to undo the harm done here by earlier administrations.)

Natural beauty will survive nowhere if we attempt to make all of it available from the car window. The best possible view from the road is the surest way to guarantee that highways will accomplish a maximum destruction of natural beauty. The escape from the highway and the motor car is increasingly the crucial test of whether we have natural beauty. Peace, serenity, the opportunity to enjoy the sounds of nature, and an escape from the jangle and hubbub of the highway are essential to any real enjoyment of natural beauty.

GLADYS L. BROWN. With the ever increasing problems in the disposal of used material, whether it be detergents used by the housewife, aluminum foil used by the picnicker or camper, or worn out refrigerators and automobiles, have we reached the moment in society when the producer of a product must be required to assume some responsibility for advising the ultimate user of the product on how it can be disposed of without scarring the land, polluting the water or creating other health hazards and required to do whatever research necessary on methods and techniques of disposal in order to be able to provide such information?

MEREDITH F. BURRILL and SAUL B. COHEN. Natural beauty can be separated neither phenomenologically nor conceptually from the concept of landscape which, in turn, is the spatial expression of the man-physical environment system. Thus, this conference and succeeding commissions and programs devoted to natural beauty, cannot treat the topic in isolation. In our concern with natural beauty, we must recognize the interconnectability and interdependence of the

physical and cultural landscape. If, to enhance the natural beauty of a given area, the existing economic balance were to be destroyed without due consideration for alternative economic support measures, such action would be no more harmonious than would be the upsetting of the ecological balance through the draining of a marsh. And if, to enjoy certain natural beauties, man must destroy others in his provision of approach roads and recreation support facilities, then an understanding of this kind of balance must be reached.

A number of panelists and speakers from the audience have called for the establishment of a permanent Citizen's Commission on Natural Beauty. We recommend that to such a commission a special advisory panel or subcommission be attached, consisting of representatives from as wide a group of learned and professional societies as possible. Concern with the man-environmental system in its totality, not simply natural beauty in its narrowest sense, should be the basis for constituting this subpanel. Consequently, the problem is more than simply one for landscape architecture, planning, engineering and economics. It is one for biology, botany, forestry, geography, political science, pedology, psychology, sociology, and a number of other fields equally concerned. A broad advisory subcommission drawn from the scholarly disciplines, can give intellectual breadth and balance to a Citizen's Commission on Natural Beauty. We strongly urge that it be established.

JOHN C. CALHOUN, Jr. Purposeful manipulation of our environment is a proper and necessary act of society, but not all of man's manipulations turn out to be for his good. The conference on Natural Beauty is dedicated to finding actions which will improve the chances that purposeful manipulations will yield positive rather than negative results. Improvements along three lines are needed, all of which have been mentioned during conference discussions. These needs can be appropriately provided by an action to create a U.S. Ecological Survey.

First, we need prior analyses of the effects which will follow from resource development and construction projects. Too often changes are recognized only after they have happened and when they cannot be undone. We need to look ahead more than we do at present.

Most of man's activities have an influence on living organisms. In some cases these effects are avoidable; in others they are not. In most all cases the biological consequences are predictable, and such predictions should be added to the considerations which attend

the making of decisions. Biological changes cannot necessarily be avoided by ecological foresight, but the acceptability of changes could be evaluated in advance.

Second, we need a sharper awareness of what there is to protect and where it is. We need to know the present status so that changes can be measured accurately. An inventory of existing resources is necessary as a basis for identifying action programs to protect natural plant and animal communities and other spots of natural beauty. The material, prepared for Wisconsin by Dr. Lewis, as described at the conference, is an excellent example of what can be done.

Third, there is need for a central focus for ecological activities in the Federal Government structure. Man's health, livestock, and food and fiber crops are adequately protected through existing organizations. Environmental phenomena in the atmosphere, ocean and other parts of the hydrosphere are subjects of relatively intense study by several agencies. But living organisms, and the natural plant and animal communities in which they exist, are not being appropriately studied or protected.

A U.S. Ecological Survey should be established, properly in the Department of the Interior, to carry out, or cause to be carried out, broad continuing investigations leading to description of, mapping of and understanding of the natural ecosystems in which we live; to provide basic information needed by agencies engaged in applied research and practical manipulation of, utilization of, or protection of these ecosystems; and, to alert government, public and private institutions on the possible ecological consequences of proposed development activities. Deeper understanding of natural plant and animal communities—their needs, dynamics, interactions and relations to man—is necessary, and would be provided through the survey program.

It would be a continuing responsibility of the Ecological Survey effort to maintain an evaluation of the extent and condition of the natural environmental resources of the United States, and to report periodically or upon request to the executive department, to the Congress, to the States, and to the public on these resources, their scope, their condition and their trends. By natural environmental resources are meant those portions of the ecosystem that are utilized or enjoyed without extensive manipulation or control or are not at present utilized directly or at all. These include the natural vegetation and animal life, uncultivated soils, scenery and water, so long

as it is unharnessed, unimpounded, and not being used for consumption, industry or irrigation.

In addition, the Ecological Survey should develop the capacity to advise the executive department, Congress and other agencies, on the probable ecological implications and consequences of any and all proposed projects and activities affecting these natural ecosystems. Those aspects of ecology that are generally called agronomy, forest, and range management, public health, flood control, wildlife management and soil conservation would be excluded specifically from the survey program.

However, the survey should develop the capability to provide basic ecological information needed by agencies carrying on these activities and might engage in cooperative projects with such agencies or with other Federal, State, local, private, and international groups.

R. MILTON CARLETON. We sneer at the French peasant, happy to accumulate manure before his home, yet see nothing incongruous in allowing commercial interests to strew our highways with the chromatic garbage of billboards. Unless this conference takes firm, vigorous steps to condemn and work against billboards it will have failed in its mission.

It is evident, from our sessions that each of us tends to view beauty from his or her particular bias. I see little evidence of ability to grasp the enormous scope of our problems. Naturalists speak of wild flower roadside planting, not realizing that all commercial sources of wild flower seeds would hardly sow 10 acres. Ornithologists view the problem of one of loss of bird cover and feed, and of habitat pollution. Roadside enthusiasts see beauty as a giant broom sweeping away ugliness.

The most distressing aspect of our meetings has been to confuse natural beauty with the substitution of stone for blacktop, row housing for suburban boxes and other manmade structures. Nothing was said of the basic cause of ugliness—the intrusion of man into a natural environment, and by his need for shelter and food, destroying as his numbers swelled.

I would recommend the addition of an ethnologist or anthropologist. Dr. Margaret Mead, an ardent advocate of the need for beauty in life, comes to mind.

As a rallying point for beauty it is high time that this Nation emulate older cultures and establish the Office of Secretary of Fine

Arts. By fine arts, I mean the nurturing of all aspects of beauty, natural and manmade.

WALLACE L. CHADWICK. Following attendance of several of the sessions of the White House Conference on Natural Beauty and listening to the numerous comments offered by the panels and the conferees about how better to design various structures to achieve beauty of appearance, it has occurred to us that an improvement would be achieved if the engineer is brought into the design before it becomes fixed either as a concept or budget. Regardless of who designs a structure, or an improvement for beauty, the actual structural design is accomplished by an engineer, usually to design specifications and a budget directed by others, usually non-engineers. Adequate conference prior to such fixing would be helpful in achieving a mutual understanding both of material, construction and fiscal limitations.

Reference was made by one speaker to the need for some new system of values which would recognize beauty as a public benefit, for which substantial public funds might be committed. Engineering for beauty would be greatly aided by such a concept if accepted by the public as justifiable.

The American Society of Civil Engineers has considered the comments made during the conference as to the need for beauty in highway location and structures, and I am urging our highway Engineering Division of about 9,000 members to organize an early specialty conference on highway beautification. Please be assured also that that society stands ready to assist you and the President in doing whatever it reasonably can to coordinate the planning, design and funding of public works seeking the optimum in balancing pleasing appearance against justifiable expenditure.

F. STUART CHAPIN, JR. As brought out in the deliberations of the conference, natural beauty has meaning only in relation to man and his capacity to sense it around him and to experience from it renewal of the human spirit. Education was properly stressed as a means of introducing new generations to these values, and action programs were clearly indicated in all panel sessions as a major means for bringing beauty into the everyday experiences of more American people at all ages.

But to understand the deeply seated basis of the interplay between man and beauty in his surroundings, there is an urgent need for research to undergird education and action programs. Very little

is known about how man acquires values about natural beauty, how deprivation affects human sensibilities in this respect, indeed how beauty affects motivation and cumulatively contributes to his sense of well-being.

Studies are needed which define the elements of natural beauty that are particularly important to residents of cities in differing stages of the family cycle and with differing backgrounds. More needs to be known about the place of natural beauty in the cycle of everyday activities and transportation movements from one part of a metropolitan area to another and how to minimize the intrusion of inimical byproducts of city life—tension, wastes, ugliness, and so on. Experimentation in planning for the development and use of natural areas in cities is urgently needed. Test demonstrations of new and imaginative approaches to the use of open space and recreation areas would assist immeasurably in giving direction to action programs.

It is therefore strongly recommended that a research grants program be instituted as a research and development effort supporting action programs. Such a program should seek to involve leading social science and planning research resources in the universities of the country.

MILO F. CHRISTIANSEN. The Federation of National Professional Organizations for Recreation is most appreciative of the opportunity to be represented at this memorable conference on natural beauty. We salute President and Mrs. Johnson for their foresight and concern that America should remain ever beautiful. With determination and effort ugliness can and will be eradicated from the face of the Nation.

The new conservation looks beyond natural beauty. It sees beauty as more than physical, material, symmetrical objects. Beauty is an attitude toward life, a spirit of grace, contentment and peace which pervades our every action and thought. Beauty thus comes from within the individual and becomes beautiful only by being observed and appreciated.

One of the great tasks before us is the cultivation of beauty appreciation among all people. Not that we seek uniformity in appreciation nor control of art and line ending in conformity, but that we seek in each person a refinement of that sense which detects that which can be and is beautiful to the beholder. It requires a readiness to perceive as well as a skill in finding. In short, we must attain

involvement of people in those forms, shapes, experiences, and responses which are usually thought of as producing beauty. Sensitivity to these stimuli will tend to develop sympathy to the concept that life can be beautiful.

One avenue to these goals is through one's free time. Modern living has produced greater amounts of free time than ever before. All indications lean toward even greater amounts in the years ahead. Give opportunities for expressions of beauty through the use of free time in the traditional mold of leisure and culture; through personal experience permit the development of beauty within each individual; provide catalysts, excitors and inciters to set the spark and breathe on the tinder until the flame licks at the cords of beauty freeing them for enjoyment by all.

Government can and should play an integral part in this search for beauty. Though there is a need that the landscape, the cityscape, the countryside and the riverscape should be devoid of ugliness, appreciation of beauty must be instilled in people and government's second responsibility is to filter ways and means of appreciating beauty to the general population. Civic participation is the key. Arouse nuclei of people interested in finding and creating beauty. Nourish these groups so that they grow, germinate and reproduce in great numbers until the message of beauty, tangible and intangible, is received at the grassroots level of our country. Let the Federal Government take the reins with programs providing facilities and services to people that they might find beauty in their environment. Let State, county, and city governments continue the struggle until there is an overwhelming demand from all people for beauty in their heart. Let the people carry the cudgel until the new conservation of today becomes the classic conservation of tomorrow and our Nation is saved from human and material blight and despair.

EUGENE P. CONSER. Consideration of natural beauty obviously involves real estate: (1) preservation of its natural beauty wherever it remains in the unspoiled state and (2) restoration to the extent feasible toward a state of natural beauty where it has been lost by virtue of adverse natural forces or by manmade forces.

Conversion from the natural state to accommodate the needs of an expanding population, whether aboriginal or civilized, rarely results in enhancing natural beauty. It may be possible to create a magnificent city from within an abysmal swamp, but more likely an abysmal city will be created from a magnificent landscape. Yet

the needs of population expansion must be met. The extent to which they are met while preserving to the utmost the beauties of nature will depend primarily upon the awareness of, the respect for, and the appreciation of the values of natural beauty by the people. Government can provide the leadership in arousing the people. This conference can be valuable for that reason if for none other, for the necessity of meeting the demands of the anticipated population explosion in the years ahead requires not only our most thorough study, but also the understanding and sympathetic response of the people.

The problems involved in restoration of already blighted urban and rural areas are multitudinous. There is neither a single answer nor easy answers. Compulsion of one kind or another by various levels of government is indicated in the form of laws setting minimal standards below which a condition of unnatural lack of beauty or safety (blight) will not be tolerated. Yet law alone cannot achieve reform. The people must want it. Individual leadership on a vast scale in many areas of need must come forward, and where not now in evidence must be developed.

The National Association of Real Estate Boards accepts the obligation of working particularly in two areas of need where the capabilities of our membership can be especially helpful. The first such area is in analyzing the residential blight of cities and towns and thereupon setting forth a detailed program of recommended procedures and sequential steps by which the conditions may be overcome and eliminated. Our current program provides for teams of Realtors experienced in urban renewal problems whose time is made available as a public service when requested by the local real estate board, in which the local government joins. To date such analyses have been made in 34 communities under what is known as our Build America Better program, including such cities as Pittsburgh, San Francisco, Honolulu, Seattle, Iowa City, and Huntington, W. Va. The resulting reports have suggested and brought action on both short- and long-term objectives which the cities are now pursuing.

Secondly, we seek to take more aggressive action in slum elimination and substitution of subsidized-rental housing under nonprofit or limited-profit private ownership. Proposals made to the Congress and currently under consideration, if enacted into law, will open the way for Realtors to help welfare-oriented groups, including churches,

initiate projects to substitute adequate housing for existing slums. If the extreme blight of slums is to be conquered some practicable method of massive private family rehabilitation program in cooperation with government must be developed to supplement or replace the necessarily limited government efforts.

Throughout the Nation there are a multitude of volunteer citizen groups looking for and prepared to respond to opportunities for civic improvement projects—small and large—that are within their capabilities or offer an adequate challenge. The inspiration that this conference can provide, followed by regional, State and local conferences, should anticipate using these groups to accomplish much of the restoration of natural beauty that is local in nature. We include real estate boards as among the most interested. Government can supply the leadership. It must provide basic law where needed. But citizen groups should be challenged to be the activators of any program to meet the objectives without imposing monolithic Federal controls.

FRANK D. COSGROVE. It appears to me that there is a close and natural connection between the proposed beautification program and the recently launched See the U.S.A. campaign. It is quite clear that steps taken as the result of the recommendations of the White House Conference on Natural Beauty can be sustained ultimately only by a greater appreciation on the part of the general public of the scenic attractions of this country and the need to preserve them.

The United States is definitely handicapped in its efforts to get more people to appreciate the natural beauty of the land in which they live by the lack of inexpensive overnight accommodations at points of interest. Vice President Humphrey quoted some shocking statistics recently when he pointed out that more than half of our people have never been more than 200 miles away from home.

The efforts of other countries, especially in Europe, to provide inexpensive overnight hostels have had a salutary effect in encouraging internal travel and is drawing increasing numbers of young Americans who normally travel on tight budgets. In Japan, the contract specifications for building roads and highways include the provisions that construction shacks along the way be constructed in such a manner that they can be used as youth hostels after the builders have left.

I would therefore suggest that the recommendations submitted

by the White House Conference on Natural Beauty include a plea for the provision of inexpensive overnight accommodations as an integral part of the beautification program. Once they are provided, they could be maintained without any further cost to the administration by the American Youth Hostels, Inc., a nonprofit organization.

CHARLES A. DETURK. Rather than a government agency for control or enforcement of beauty on highways and other public works, may we not have a requirement—a set of criteria—to be met wherever Federal funds are granted for parks, highways, dams, reclamation works, canals, etc.? This might require the Atomic Energy Commission, for instance, to value beauty, shoreline shortage, and recreation in judging a location for a nuclear-powered generating plant.

GEORGE A. DUDLEY. While dealing with the classic items of ugliness (billboards junkyards, etc.) the conference did not stretch itself far enough in regard to the two major determinants of our urban, suburban, and rural ugliness:

The private financial, business, and industrial community and, at the opposite end of the social and economic scale, the poverty-stricken community.

The first determines the appearance of the vast bulk of the urban scene, probably a 10 to 1 ratio to civic, governmental, institutional, or even utilities determinants, including highways. The poor, through no fault of their own, cover the interstices with a patina of ugliness from Tobacco Road to Dead End.

My recommendations are:

1. The President should work personally and directly with the private financial, ownership or developer community, just as he is doing so successfully with a very similar power structure related to the imbalance of foreign exchange, the dollar drain. He should hold a series of Presidential seminars with the key people of the insurance companies and pension funds, the great supermarket chains, the soft drink companies that provide the signs for Joe's Bar and Grill, the NAHB and the large developers, the mortgage and commercial bankers, the office builders and industrialists, and the motel and restaurant chains, etc.

Preparation for these seminars must be at the level of the representatives who will attend, the followup a program of Presidentially supervised self-policing.

2. The antipoverty program should be examined in detail in this respect and extended in every way possible to wipe out the ugliness that poverty produces. The process of wiping out the ugliness can itself be tremendously job-producing. The inculcation of standards of cleanliness and taste must be part of raising the economic standards.

H. WENTWORTH ELDREDGE. The conservation, rehabilitation, and development of both natural and manmade beauty is a massive task clearly calling for the upgrading of our planning technology, or resource allocation for agreed-on goals, from a micro- to a macro-scale level in three specific ways to match the ever-growing increase in the socio-economic complexity and extent of the rapidly expanding American scene. Specifically, considerations of area, function, and time, are all too limited in our planning capabilities.

First, the amount of area covered by plans should be continually enlarged. There is a distinct need for a national urbanization pattern or locational strategy for the entire United States; moreover, this should be coordinated with Canada and Mexico on a continental level. Second, the number of functions that must be bundled in comprehensive plans must be broadened to include all major sectors of the economy (the rationalization of the steel industry for example) as well as sectors of social, aesthetic, and political import and action—not of immediate economic consequence—in a unified approach. Stated in another fashion, aesthetic and humanistic values and institutions must be in a planned relationship to economic and political values and institutions. Thus all such activities must be designed as a unit both physically and as social structures. Clearly both the public and private sectors must be meshed. The poverty program and urban/rural redevelopment are cases in point. Population planning is a precise and absolute base for the entire macro-planning endeavor. Thirdly, the United States seems strikingly incapable of planning long-range macro-scale programs in time. We seemingly can't get much further ahead than next year's administrative budget on a national scale—except in some specific areas of defense, space, and resource planning of relatively limited scope. Planning-in-time we do well enough for a micro-space or for a micro-function, but 10-, 20-, 50-, and 100-year national plans are still beyond us. Leadtime must be stretched.

The amount of capital needed for these massive operations, both public and private, will run into many tens, even hundreds, of bil-

lions of dollars and demand a driving, expanding, planned, mixed economy; there is no cheap way out. Unless this country can think big in area, function, and time, worthy of our resources, power, and vision, there will be neither manmade nor natural beauty for a potential Great Society.

CHARLES W. ELIOT II. The meeting of the Recreation Advisory Council at the White House Conference on Natural Beauty on May 25 included discussion of organization and roles of the Council for coordination and stimulation of programs for natural beauty. This discussion was reminiscent of several previous efforts to provide effective machinery for coordination of programs which are the responsibility of agencies in several departments of both the Federal and State governments. It was disturbing to some of us in the conference that these previous efforts and experiences do not appear to have been utilized or even considered.

The experience over ten years—1933-43—by the National Resources Planning Board and its predecessor agencies in several fields related to natural beauty, conservation, and recreation should be helpful. Among the lessons learned from that experience were:

1. "He whom the gods would destroy is first made coordinator." To survive, the coordinating function has to be in the Executive Office of the President—in a position comparable with the Bureau of the Budget to emphasize the many values other than monetary.

2. Interdepartmental committees have all too often in the past degenerated into either mutual back-scratching activities or been used by one or another department to see to it that nothing was done which might upset a particular bureaucratic empire. To avoid these tendencies, inclusion in such committees of a few public members, appointed by the President, has proven advantageous—particularly if the public members are chosen for their special knowledge and do not represent special interest or lobbying groups.

CLIVE ENTWISTLE. I wish to describe the essential elements of an immense new action program, capable not only of fully achieving most of the major aims we have set at this conference, but many others even more crucial, and of doing so within the traditions of our free society and our actual economic potential.

This program requires the construction, over the next 35 years, of a number of new large cities, regional capitals each with populations numbered in millions.

No one, witnessing our exploration of the solar system, our harnessing of atomic energy, or the development of cybernetic machines, can doubt that we stand at the threshold of the greatest mutation in human affairs during the history of this planet.

Yet the forms of our old cities and the organization of life within them remain essentially as they were before this fantastic technological revolution began. A whole variety of factors, physical and metaphysical, conspire to confer on our old cities an immense resistance to change.

As a result of this violent conflict between the forces of change and those of reaction, the traditional checks and balances of our society have been seriously eroded. The symptoms of community disintegration, mental sickness, chronic disease, and urban crime, only recently spelled out by the President are increasing at an alarming rate.

New patterns of life must, and must urgently, be developed and applied. Yet the persistent physical framework of our obsolescent metropoli binds us inextricably to the problems generated within them. We cannot change the one without changing both.

Every urbanist who has attempted the task of meaningfully changing our old cities has been obliged to admit that the task is practically impossible. We cannot, humanly, politically and economically, raze whole districts or whole cities to the ground and reconstruct them and the institutions they house in harmony with the needs of our times.

We might then conclude that there is no realistic hope of arresting and reversing the disintegration of our urban society. However, at this crucial moment we may remark the timely emergence of a new factor—the population explosion. The expected addition to our Nation of 160 million people (on a median projection) over the next 35 years, can lead either to social calamity or to the reestablishment of our civilization on a new and higher plateau.

If we passively allow this new population to accrete around the fringes of our already overloaded metropoli, a human disaster is inevitable. If on the other hand we use this situation actively as an occasion for the organization and establishment of new large cities, designed to foster the development of sound minds in healthy bodies, then the future will be saved for posterity.

This is a real and inescapable choice, more important to our future welfare than any other we have to make. Due to its scale, government, Federal, and State have to make it.

In such new great cities, intellect and art, industry and labor, can join forces in the development of idealized institutions dedicated to the furtherance of man's highest welfare.

In these days, when, in the lifetimes of many of us here, man's oldest and wildest dreams have become commonplace realities, who dares to claim that Utopias are forever unattainable?

We have the means, the resources, the know-how. We have the most urgent need, and finally in the population increase, we have the occasion. Many able and dedicated men and women await only a decision to begin this great task.

Paradoxically, it emerges by the application of cybernetic theory, or of holist philosophy, that it is practical, and relatively easy, to solve all the major problems of our day simultaneously by a new positive all-embracing concept; whereas, since they are all interconnected, it is essentially impossible to solve them individually, one at a time. I offer this proposition as food for thought to those of us here that are, as politicians should be, concerned with the art of the possible. Our newly emerging interconnected world demands a new kind of interconnected thinking.

The program of new large cities of which I first spoke is just such a holist concept.

In such a city, every factor in physical health, in social stability, in educational goals, in corporate activity, in convenience, in aesthetic sensibility, every factor which is significant will be allowed to play its due role in the conception of a balanced environment and way of life. Such a city I term Holopolis—the whole, the healthy city—for the whole, the healthy man (for whole and healthy are cognate).

Reverting to the specific aims of this conference, we may note that the holopolitan city would be set, compact and nucleated, within a vast area of park and recreational land which it would own and keep forever inviolate against the incursion of suburbs. The program as a whole would conserve some 10 million acres that would otherwise be lost to fringe development.

In Holopolis, there is virtually no air pollution whatever. Children can walk to school in a school park. Every adult has abundant exercise, recreation, and leisure facilities at the foot of his dwelling. The average journey to work takes a few minutes. Such cities can attain an architectural splendor, a variety of promenades, a wealth of trees and lawns, plazas and fountains, more lovely than that of the fairest cities of the Old World.

I repeat: I am not describing an unattainable dream, but a concept that is already well developed, and that we can begin to actualize as soon as we decide to do so. I have claimed that it is easier to solve all the major problems of our day simultaneously, rather than one by one. The expected effect of this immense program on the peace of the world is developed in my working paper "Holopolis: Herald of the Great Society."

ROBERT W. EVANS. The request by President Johnson for conferences on natural beauty at State and regional levels provided two essential requirements for a successful national program—a focusing of attention at a Federal level on a complexity of problems and an endorsement of all the grassroots efforts out of which the conference was generated.

In every city these concerns have been held very largely by private citizens and nongovernmental groups, in such variety and numbers as to provide all the impetus for the local private effort the President considered essential. His call for national activity involves the top levels of government. But the third requisite—effective liaison with local governmental bodies was not sufficiently examined by the panels.

The conference members were mainly talking to each other about subjects on which we were in complete agreement. The question remains whether or not we will find a genuinely receptive audience in our own public officials. Without their attention our interests may not be realized.

In many cities and States, well-organized private-citizen efforts to preserve, beautify, and restore their cultural, natural, and recreational resources receive little or no serious attention from their own governmental bodies. Too often, the agencies whose responsibilities lie in carrying out citizen programs and requests dismiss them as unessential, frivolous, or impractical.

It was encouraging to see some of these local agencies represented at the conference, and to find a few acting as panelists. But if the State and regional conferences are to be more than talk, a primary stress will have to be placed on involving many representatives of all governing agencies. It is necessary that they become motivated by the same interests and objectives which impel their citizens' demands. They must be shown that efforts involving beauty and culture are as important as those which involve business and budget first. It is essential to demonstrate to them that aesthetic and

cultural concerns will provide revenues exceeding investments, open new markets, attract new industry and personnel, relieve social pressures, and preserve vanishing cultural and physical resources too valuable to be lost. Education and involvement of the majority of our local administrators in matters of natural beauty must be brought up to the level of that of the citizen groups who were charged by the President with the responsibility of making this challenging national program successful.

NORVELL GILLESPIE. Many exciting things have happened in the American economy in the two postwar decades and many things have affected the betterment of the American way of life.

Certainly we are the most affluent country in the world—but it takes more than money to convert the home and the lot on which it stands to produce a well-balanced existence.

And in this pattern lies an opportunity and challenge. All of us can work with the soil and the sun to create more beautiful surroundings.

Whether it is an exciting collection of flaming-orange Tropicana roses, which adorned the stage of the State Department's auditorium at the conference or whether it is simple ground coverings of green junipers from the high mountains of Colorado, life is enriched just a little bit more.

As Lady Bird Johnson said in her opening address, "there are 190 million of you to help in this job of beautifying America—and whether you plant one small tree in the front yard or in the back yard, does help in the total effect."

It appears to me that a valuable lesson was learned during the Victory Garden campaign of World War II days when American corporate enterprise was called in to assist government leaders. The same task force should be enlisted in this current crusade.

There were no fewer than 67 billion-dollar companies last year—organizations whose annual sales topped that magic number.

This includes such giants as General Motors, IBM, Caterpillar Tractor, Dow Chemical, Aluminum Company of America, U.S. Rubber, Standard Oil of New Jersey, and others.

Companies such as these (Union Pacific Railroad, under the late William Jeffers, contributed much) in wartime promoted the Victory Garden program with inspiring little "Garden for Victory" logos inset in consumer advertising and millions of pieces of company literature.

There was no thought of remuneration as far as sales of products—but rather everyone concentrated on the patriotic job of producing more food at home.

It appears to me that the same unselfish spirit can be tapped again—for American corporate enterprise has talent which is eager and willing to assist in the big job ahead.

If the Advertising Council can be brought into the picture early, there is no doubt but that a magnificent advertising and promotion campaign can be developed for 1966, at virtually no additional cost to anyone.

The job can be a two-pronged one—one to inform the public at large and the other to inform millions of employees. Standard Oil of California made many contributions in the field of Victory Gardening in World War II, so did the employees of General Motors' plants scattered from coast to coast.

There are vast energies which can be harnessed to this total program. All that is needed is a little direction and some of the enthusiasm which overflowed at the conference.

WILLIAM H. HULL. It has occurred to me many times during the two days of this White House Conference on Natural Beauty that my fellow conferees might wish local assistance in their efforts toward beautifying their communities and States.

Our organization, the Men's Garden Clubs of America, has hundreds of affiliated clubs all over the country, each consisting of men whom I know would be pleased to work with anyone for local and State beauty. Most of these clubs are already very active in civic and industrial beautification, since we have both local and national programs for this purpose.

With an educational organization such as ours consisting of men gardeners vitally interested in the very subjects discussed at this conference, I am certain I can offer the assistance of every single one of our clubs. Should you be unaware of the identity of the men in your local men's garden club, I suggest you write our executive secretary, George Spader, at our headquarters. Simply address it Men's Garden Clubs of America, Morrisville, N.Y.

JAMES M. JENNINGS. For the conference delegate the overriding question that seemed to be uppermost at the conclusion was how to accomplish a natural beauty program for this Nation after so many years of spoilage of our natural beauty resources. Clearly no government agency, organization, or private individual had prior rights

or pronounced demonstrated expertise in this field of natural beauty development. It was altogether too clear that "Beauty is in the eye of the beholder." Many cursed the darkness said to result from our developers, engineers, and others who are blamed for the appearance of our countryside. But few lit a candle to show the way to a more naturally beautiful tomorrow.

The architects called for a new approach—are the architectural treasures of our cultural heritage to be discarded? Many urban dwellers and suburbanites called for beautiful highways now that they have efficient access to home, job, shopping, and vacation. Fundamentalists in landscape architecture called for a return to rightness where people don't built on slopes or in the flood plain where they never should have been (and with this we wipe out most of the population of western Pennsylvania, southern New York, West Virginia, and other areas like eastern Kentucky, western North Carolina, and Maryland, etc.). Avowed conservationists called for preservation (or the exclusion of people for the benefit of a privileged few).

Only here and there did a mayor remind us of the need to be practical and recognize the role of politics, the art of the possible. Occasionally a brave public official reminded delegates of the many ongoing programs already available and the administrative procedures, dedicated staff, and allocated funds that could accomplish natural beauty program goals. Now and then a Girl Scout leader, a League of Women Voters' representative, or a State commissioner of agriculture arose to advise about useful experiences or implementation tools, such as conservation commissions, that further the cause of natural beauty.

In summary, it appears that natural beauty is like motherhood. Everyone is for it but goes about it somewhat differently and this is where the confusion and conflict arises.

One of the major conclusions appears to be the need for a task force on natural beauty. Its purpose would be to identify useful existing programs and to provide a central information clearing-house on all natural beauty aspects. Included would be information on Wisconsin's successful landscape architecture—based ecological inventory program, Ohio's (or California's) statewide recreation plan, the river renewal demonstration projects proposed by Cornell's Water Resources Center, the research findings of a national design center, the historical landmark inventory needs noted

by several, the criteria for a wild river, and methods of land acquisition, preservation, or development for natural beauty enhancement. Out of this could arise the sense of urgency, agreement on goals and objectives, mobilization for action, financing, and staffing needed to implement a national natural beauty program.

NORMAN S. JOHNSON. Recognizing the problems of coordination at all levels of government, but with particular reference to the Federal departments: pressure should be placed on the Department of Defense to extend itself to be more conscious of total environment.

Little or no attention is given at many military bases relating to aesthetics. With manpower in hand, plus support from the Economic Opportunity Act, much could be done.

Too little attention is given by the Army Corps of Engineers in acquiring land for various projects so as to insure that beautification and recreational developments are obtained. Landlocked basins are designed with no public access or marginal areas of conflicting uses allowed to remain around the perimeter of acquired areas.

Miles and miles of fenced concrete flood-control channels wander through cities with no specific multipurpose or beautification consideration incorporated. The program could be the complete source for parkways, riding, hiking, and bicycling trails.

Plans should be reviewed by landscape, recreation, and architectural personnel to insure maximum public benefit by multiuse concept rather than present single purpose.

JAMES E. LASH. Far more attention must be paid to the entrepreneurs of construction, public and private, whose works add nearly \$70 billion worth to our environment every year. How they make the intrusions on nature required by increasing population and economy can either destroy, preserve, or enhance natural beauty. What they build is the greatest determinant of environmental beauty in our central cities and suburbs. Make beauty pay for the construction entrepreneurs and you energize perhaps the greatest force for environmental beauty in this country.

Public construction entrepreneurs are the elected officials and legislators who authorize construction and the money for it, along with the appointed officials who let the contracts. If memory serves, they account for about a third of the Nation's annual construction bill. Making beauty pay for them is expressed in terms of elections won and public approval for the expenditures or tax moneys for beauty.

Private construction entrepreneurs are the homebuilders (developing roughly 1 million acres per year), the developers and investors of residential, commercial, and industrial properties, accompanied by insurance companies, banks, savings and loans, and other lenders. Making beauty pay for them is in terms of earnings, profits and security of investment.

In both cases, it is the construction entrepreneurs who either grant or deny the architects and designers the opportunity to apply their best design skills.

These people were, to say the least, vastly underrepresented at the conference. Unless they are drawn into helping to formulate the new religion of seeking beauty, they are likely to subscribe to it only slowly.

Specifically, research should be encouraged to learn precisely when beauty does pay the construction entrepreneurs and when it doesn't. They will be guided more by facts than exhortation.

Still, the elected money appropriators and the private lending institutions act in part on initiative and personal motivations. Repeated appeals to them to do so in behalf of beauty should come from high sources.

Professional and trade associations (of which there are many), should be requested to devote portions of their national meetings to the pursuit of beauty in their works.

Constant publicity should be given to examples of beauty that pay. (Ten years ago a leading shopping center analyst advised clients that aesthetics was the least important factor in the financial success of shopping centers. Since then, some shopping centers, such as Northland in Detroit and Cherry Hill near Camden, appear to have proved him wrong—at least in their middle-class neighborhoods.)

A subsequent White House Conference on Environmental Beauty should be convened, to concentrate on the works of man which dominate urban environments and were discussed but obliquely and with mostly the wrong audience at this conference.

BENJAMIN LINSKY. Professional engineers who are employed as consultants, designers, constructors, and administrators increasingly have recognized that the amenities are desirable for and desired by the people—but the alternative policy decisions for the extra costs must be made by their private employers or their public employers, i.e., the private boards of directors or the public legislative bodies at

city, county, regional, State, or Federal level. The professional engineers have the responsibility for presenting alternative designs and evaluations of amenities in addition to readily calculated costs and benefits.

Lovely vistas are of little value if they are frequently blotted out by manmade haze, even when air pollutants are below concentrations harmful to health or damaging to materials. In a like fashion, malodorous gases can spoil man's enjoyment of any area at distances as great as 15 to 50 miles from the source.

JOHN F. H. LONERGAN. I observed that the panels did not include bankers, businessmen, advertisers, and other groups who are strong elements in the formation of the designs of our cities and countryside. Many of these uninvited are the principal determiners of what design shall be, while the trained designer is only an extension of their desires. I feel that any future conference should include a good percentage of these people. In order to arrive at a more balanced solution to aesthetic questions an amount of indoctrination could be accomplished at the same time.

In a well-balanced design office, specialists such as mechanical engineers, heating engineers, architects, and site engineers protect and insure the success of their specialty. The same status and image should be given a new section in the field of design, devoted to beauty or aesthetics. A strategic place to have instituted this would have been in the Federal highway project.

The use of television, radio, newspapers, and magazines has taught our people to use both good and bad products. This same Madison Avenue technique would be justified in an effort to re-instill into the public a demand for a beautiful United States.

At present, fish and wildlife specialists receive much of their funds from revenues obtained through the use of firearms. A different form of taxation or fund origin would do far more to stimulate beautification than the present system.

This conference should go on record that no highway using Federal funds shall be allowed to pass through a Federal, State, county, or city park or any other public land.

If the 10-acre watershed requirement were removed as a requirement for Department of Agriculture assistance in the construction of dams, more private capital would be brought into the construction of small lakes throughout the country, providing flood control,

water supply, raised water table, recreational attraction, and wild-life encouragement.

F. J. MACDONALD. In order to get action on lower government levels for the President's program for enhancing the beauty of America, the following ideas may help:

Many organizations have already existing regional and State officers who are in a position to augment this program.

The Associated Landscape Contractors of America is one example of an organization vitally interested in this program. It is set up nationwide to be of assistance in disseminating information and encouraging local action.

The officers and regional directors of ALCA are ideally situated to give good coverage of the country. The official publication, "Landscape Design and Construction," is an excellent means of reaching several thousand landscape contractors, landscape architects and many other allied professions.

There are undoubtedly many other national organizations which are equally well situated to be of assistance.

However, let me be the first to put at the disposal of the National Council on Natural Beauty, the services of Associated Landscape Contractors of America.

We will cooperate in any way to help get this program started immediately.

Please feel free to contact us at any time.

The White House Conference on Natural Beauty was, without a doubt, a resounding success.

May we suggest that governors, county commissioners, and city mayors be urged, from the White House level, to organize similar councils on their respective levels?

WILLIAM W. MOORE. It was a great privilege and pleasure to participate in the White House Conference on Natural Beauty as a representative of the Consulting Engineers Council, professional engineers in private practice. I believe that the willingness of such a large number of highly competent and busy people to devote their time and capabilities to this problem indicates that we will find a solution.

It occurs to me that some items merit additional consideration. It was somewhat distressing to note an apparent lack of understanding of the economic factors which are an inseparable part of any decision pertaining to public or private resource development.

To my knowledge, only Mr. David Sheppard, participating in the highway discussion, Roadside Control, called attention to the fact that funds spent for beautification will not be available for additional highway construction or other needed works. It is possible, of course, that progress toward beautification can be obtained through good planning and design at little or no additional cost. However, in most instances, the improvements we discussed would require additional funds which must be obtained from some source and an equitable redistribution would necessitate the development of some new type of criteria to guide in the evaluation of benefits related to specific expenditures. In other words, some new criteria for cost-benefit evaluations would seem to be necessary. James Rouse, participating in the countryside discussion, The New Suburbia, did indicate that such criteria may be practically defined by relating the aesthetic consideration that will result in attractive residential communities to the economic values created. This would indicate that Mr. Rouse, and no doubt others, have found ways to appraise the additional values created by the use of good design.

In general, however, there seemed to be a substantial lack of appreciation of the need for highly competent engineering talents and abilities to translate architecture, landscaping and city planning into economically sound projects.

It might be appropriate to note that our vital and expanding society and economy depend in large part upon practical application of scientific and engineering capabilities. Indeed, the conference itself could be convened only in response to vastly improved living conditions dependent in large part upon scientific and technical engineering developments. Of course, the industrial base, our high standards of living and our society are the result of a working partnership involving industry, finance, labor, government, and the professions. It is appropriate now that this working partnership seriously consider improved criteria leading to surroundings which will be not only serviceable but also aesthetically pleasing. I submit that it is important that we recognize the need for new criteria, recognize that choices are involved, and that these choices will be based, in large part, upon economic capacity and the economic feasibility of each individual project concerned. With these thoughts in mind I would like to make three specific suggestions for consideration:

1. New criteria for cost-benefit evaluation of specific projects should be developed, relating aesthetic considerations to budgetary limitations. It is proposed that these criteria may be developed by appraisal techniques recognizing the added value of attractive facilities in themselves and as related to the entire surrounding community. For example, a highway harmonizing with its surroundings might well have a beneficial effect on the value of the property in the immediate vicinity, and an attractive building has been shown to improve the surrounding property values and to encourage the construction of additional facilities comparable in appearance in the neighboring area.

2. Some means of coordinating public and private programs and efforts should be developed so that the total combined impact of all projects and developments in an area can be rationally evaluated. This involves the development of specific techniques for evaluating the total combined benefits of different projects in a community, as opposed to individual evaluation of each single-purpose element or project.

3. It is suggested that substantial improvements in air and water pollution control, and in the beautification of private facilities, including industrial plants, might be encouraged without direct Federal subsidy by permitting current business expense treatment of the costs of such improvements, rather than treating them as capital improvements to be depreciated over a number of years. It is possible that increased property values created as a result of efforts in these particular fields might be omitted in computing property valuations for tax purposes.

In establishing criteria for guidance toward improved design, it is important that flexibility be provided so that stereotyped forms are not developed in the name of beautification.

Consulting Engineers Council of the United States, which represents individuals and firms engaged solely in the private practice of professional engineering, is pleased to have had the opportunity to participate in the White House Conference on Natural Beauty, and stands ready to devote its skills and energies to assist in any and all ways toward the attainment of the objectives stated in the President's message.

ALLEN H. MORGAN. The public won't be convinced that conservation of natural resources and preservation or creation of beauty in our environment are worth the price until the whole concept and

its related problems are directly related to their pocketbook. We must demonstrate factually the dollar value of the issues we are talking about, we must relate it to real estate values and the tax rate, we must relate it to the mental and criminal decay of people raised in blighted environments.

We will not get public recognition and adequate budgets until the taxpayers think it is important. Until this is done, conservation will be considered just another frill, a gesture to the emotional dreamers to keep them quiet.

There are examples all over the country that can be used to document this financial impact—urban renewal in Boston, for example, where a report to the Massachusetts legislature made in the 1870's pleaded for adequate parks, zoning and recreational opportunity, and predicted that the tenements then being built would become blighted and have to be renewed at huge public expense. But what is needed are the hardheaded financial economists and business men to document this and put their prestige behind it.

PHILIP L. REZOS. As director of property for the city and county of San Francisco, responsible for the acquisition of lands and rights of way for all municipal purposes, including public utilities, water and power, and for school purposes, and for the sale and leasing of surplus city and county properties not needed by the city, it is my intention to promote the recommendations of the conference in every way possible.

Much has been done by the American Right-of-Way Association, a national organization of 8,000 members in the field of right-of-way and land acquisition for public and quasi-public purposes, in a number of related fields to natural beauty that could easily be expanded to include the goals of the conference and of the President, on natural beauty. The Association has standing committees on education, liaison, highways, land economic studies, right-of-way valuation, pipeline, utilities, and public relations. All of these have a bearing on our conference subject, and many are very closely related, such as liaison, highways, and utilities. The liaison program of the Association includes a 30-minute motion picture film now actually in production at a cost of \$50,000, promoting coordination and advance planning of various agencies.

The highways committee, among other things, has given consideration to the development of streets, highways, and freeways, as part of a single coordinated design, such as the Cobo Hall, Garage and

Freeway complex at Detroit. This type of thinking would create a harmonious whole instead of the present all too often piecemeal approach without regard for the final result. This change in concept came in for considerable discussion at the conference.

The American Right-of-Way Association and its 8,000 members in 43 chapters throughout the country pledge their support to the goals sought by the White House Conference on Natural Beauty. The Association membership includes every facet of the right-of-way profession and the related fields of public utilities, oil companies, railroad companies, city, county, State, and Federal agencies, assessors, engineers, title companies, banks, and other lending agencies, and great progress has been made in the 30-year existence of the Association in better understanding and cooperation among all the various interests represented. I believe the Association by increasing the scope of its activities can be of great help in attaining the conference goals. It is my intention to make these goals known to every member of the Association at the Annual National Seminar and Meeting of the Board of Directors of the Association at San Diego.

FRANK J. RIMOLDI. I hereby submit the following suggestions:

1. That change be made in Federal Income Tax Law to the effect that anyone donating land to any public governmental unit for conservation, or beautification, or recreational purpose or purposes will be allowed credit over and above the 30-percent of annual income exemption.

2. That a CCC (Civilian Conservation Corps) or similar organization, be reconstituted for purposes of: (a) forest conservation, (b) soil conservation, (c) water conservation, (d) roadside beautification, (e) screening of ugly situations, and (f) general aesthetic improvement of the outdoors, etc. This would not only improve the general appearance of America but would give employment to many high school drop-outs and also to many unemployed youths and thus reduce juvenile delinquency and give thousands of city youths their first contact with nature (a most wholesome and most necessary experience).

3. The subject of the desecration of outdoor scenery by billboards was amply covered in the conference, but if I remember correctly, no mention was made of other forms of outdoor advertising such as all manner of sign boards: (a) Nailed on trees or erected on posts, etc., especially when they start as far as 50 miles or more from the

place or attraction advertised and keep repeating; or (*b*) the size and number of signs at motels, filling stations, restaurants, souvenir emporiums and others catering to tourists, should be regulated on a statewide and/or countywide basis, in order to reduce the carnivalization of our highways.

ELMO A. ROBINSON. Our founding fathers promulgated a modest list of natural rights. Since then many other rights have been added: the right to work, to health, to learn, to trade, etc. Enactment by Congress of the Wilderness bill constitutes a claim that our citizens possess a right to wilderness. The conference is a call to recognize man's right to beauty. Thus to place beauty on a level with life, liberty, and the pursuit of happiness gives it dignity and respectability.

PHILIP ROSS. The enhancement of the beauty of America cannot be accomplished solely by eliminating billboards from the roadways or cleaning up junkyards. A fundamental ecological understanding of our natural resources is necessary in order to provide data for highway planning, scenic easements, and green belt planning, to mention just a few. Ecological understanding would have prevented the plague of rodents in the Buena Vista lake bed in California when coyotes were indiscriminately poisoned; the sudden bloom of algae and the accompanying foul odors in a community pond when excess fertilizer was applied on a nearby field; and rich bottom lands from becoming barren subdivisions. Ghost towns, epidemics, poverty, localized unemployment, falling water tables, smog, floods, beach erosion are but a few results of ecological errors from poor civic planning.

I strongly urge that an Office of Ecological Research be established in the Department of the Interior. The Office would be responsible for a twofold program for the conservation of our natural resources. The first task is to describe, map, and evaluate the components of our renewable natural resources and their interactions with the environment. This research would be undertaken on the 856 million acres of public lands. The information gained from such a program would provide data for formulating policy for (1) forest and Federal recreational land programs; (2) wildlife and water conservation; (3) watershed management, flood control, and soil conservation; and (4) enhancing the natural beauty of the United States.

The second task is to administer line-item funds for State and local surveys. Special funds would be allocated to State agencies to conduct inventories and investigations of their country and urban natural resources. Because there is a lack of trained ecologists in the scientific community, special funds would be awarded to colleges and universities for the training of specialists in ecological, land use, city and urban planning. Funds would also be awarded to colleges and universities for scientists to study local ecological problems that would help to fill in the information in the total picture of the natural resources of the United States.

Since the beauty of our land is considered a natural resource, we must develop a new dynamic conservation program that relies on basic ecological data. We must not only think in terms of scientific study of a wilderness area, of a grassland, or of a forest area, but also we must think in terms of ecological study in our communities and cities.

In order to arrive at wise and practicable steps in the preservation and management of our natural resources, including natural beauty, knowledge must be obtained not only of the actual resources themselves such as plants, animals and their distribution, but also knowledge must be obtained of the basic, fundamental mechanisms and relationships of these components to each other, to their environment and to man. There is no Federal agency dedicated to studying or coordinating the study of the total environment including plants, animals, soil, water, air, and man. An Office of Ecological Research in the Department of the Interior should be established before the basic patterns of our natural resources become obliterated by tin cans, water and air pollution, and man's eternal neglect of his land.

WILLIAM L. RUTHERFORD. The beautiful white oak trees of Illinois are being ruthlessly eliminated to make kegs for whiskey production. This is only because of U.S. Government rules that forbid the use of a keg more than once. Europeans use theirs many times for hundreds of years. Our rule is a depression-born rule to make work and has no place in today's world. The few places these fine stands still exist are the few places remaining for park sites. It will take over 100 years at best to regrow such trees.

We know the extent of this problem as we have bought 4,600 acres of such for our Peoria Park System since August 1963. We are working on much more, but the woodcutters with modern saws

are impossible to catch up with. Our alternatives to park use are simply cutover sites for erosion and new rural slums.

Mrs. J. LEWIS SCOTT. I propose the introduction of the community ecologist as a separate and autonomous office within the community government. It is the function of the ecologist to foresee the ecological consequences of all projects sanctioned by the community.

I propose the Federal Government accept clear, decisive responsibility for conservation leadership. The most vital action would be the establishment of a Federal Department of Natural Resources by Executive Order, where citizens can concentrate their support for better organization and management of our Nation's resources.

The President could transfer agencies, the Corps of Engineers, the Forest Service, the Soil Conservation Service, and the Rural Electrification Administration, to the Interior Department and then create the Department of Natural Resources.

A generation ago, the Hoover Commission task force suggested a Department of Natural Resources as did Harold Ickes in 1938.

RUSSELL J. SEIBERT. The current national attention on natural beauty must be brought to the attention of everyone in the United States of America. As an effective followup for the White House Conference on Natural Beauty and to assist in the education of children, parents, and all of our citizens, it is suggested to call on the facilities and talents of Walt Disney. A hard-hitting, animated movie stressing natural beauty, garden courtesy, and a return to the respect for the property of others might have an encouraging effect at this time.

Since none of the panels stressed a consideration of plants and their part in natural beauty, may I point out that all our lives are contingent upon plants, both cultivated and natural.

Cultivated and natural plants are important in maintaining, restoring and creating natural beauty. Nature alone can seldom restore itself to its own former natural beauty. The assistance of man is necessary to help heal the ravages of man's destruction of natural beauty.

Horticultural research on plants, including their introduction, testing and evaluation for suitable use in beautification is important for all parts of the United States.

Everyone should know and experience for himself the thrill of growing one's own plants. Horticultural education and the train-

ing of competent gardeners throughout our country must become a part of America's preservation and restoration of natural beauty.

Dr. J. HAROLD SEVERAID. There was a noticeable aversion to giving a definition of beauty. I would like to try.

Definition of beauty: Beauty is anything which has the potential for pleasing man's eye and through this medium to catalyze the physiology of the body in such manner as to cause a positive reaction which recognizably affects both the heart and the soul of the viewer.

Ownership of beauty: Any inanimate property whose appearance would be interpreted as beautiful by a majority of the people should be accessible to all of the people either through public ownership or private easement. Governments alone can hold eternal or lasting deeds to property. Thus, government not only has the right but the responsibility to determine its ultimate use in the best interest of the whole people through time.

Investment in beauty is an investment in oneself, for without beauty one's self may exist but does not really live.

Aesthetics is to the soul and mind, what food is to the body.

One begs the question when he says that a monetary value cannot be placed on beauty. I agree that it should not have to bear a price, but we should be able to value it in dollars if we have to. Let's get some properly oriented economists into the conservation field. We must develop a means for attaching economic values to aesthetics.

Man has forced man to evolve mentally as well as physically. Too often the urbanite no longer realizes that he has become an ersatz organism. He alone among all creatures on earth no longer feels a kinship with the soil. These people yet may know or believe that they are children of God. But, clearly they do not know that they are also children of nature. Restore this recognition and man will demand beauty in his world.

STANLEY B. TANKEL. The White House Conference on Natural Beauty has produced a profusion of good ideas. Fortunately, many will not be costly to implement. But the price tag for the rest would far exceed available financial resources, even if these are increased dramatically. It is important for the conference, then, not merely to list every good thing that comes to mind, but to offer some guides as to priority.

Clearly, the need for natural beauty is the greatest in the Nation's graying older cities, in the hearts of our metropolitan areas. This need will not be met without a major infusion of Federal funds for

park acquisition, park development and recreation and beautification programs, including grants-in-aid for local operating budgets for recreation and maintenance. Altogether, this could mean a Federal expenditure of several hundred million dollars annually, over and above the \$160 to \$200 million anticipated for the Land and Water Conservation Fund, HHFA open space funds and other Federal programs in this field.

The Honorable Elinor Guggenheimer, of New York City's Planning Commission, puts it simply. She has called, symbolically, for national parks on 20- by 100-foot lots in our city slums.

In spite of some fine statements about putting the parks where the people are, Federal policy continues in the great outdoors tradition. Even increased attention to urban areas is not enough. It is in the older cities at the core of these urban areas where the most people live with the least natural beauty.

Undoubtedly, we must protect the Nation's wilderness and countryside, beautify our roadsides, our waterways and our suburbs. But providing a few dots of green in our squalid cities should command Federal funds on a large scale.

ROBERT P. WEATHERFORD, Jr. The silver thread woven into the fabric of discussion in these two days is beauty in all America. The numerous suggestions on accomplishing this seems to express a desire for additional national legislation or to superimpose authority upon some existing overworked agency.

For the sake of practical politics, which must be applied even in the fields of national aesthetics and natural beauty, I would propose if immediate necessity or a public sense of urgency seems to be required, that a commission or board, with few members, be created to explore the use of existing powers within such programs as Federal highways, Federal housing, urban renewal and others wherein Federal grants are provided.

This would place the responsibility for enforcement upon the recipient unit of local government. Through the various agencies, beauty, cleanliness and green areas could be built into our cities and rural regions, and where Federal funds are required these could become factors required for the securing of such funds.

By enlisting the best practical minds in America and using existing responsible agencies, you may avoid a crash program and the inherent mistakes or oversights which would accompany it. This would evidently launch this great program, which the President

and this conference have envisioned, upon a smooth and dependable basis.

As time and study are blended in this fashion no time loss would be evident and then national legislation could be recommended if deemed necessary. This would launch a program of national merit on a plateau of acclaim and dedicate it to perpetuity.

Having served two large metropolitan areas in our Nation, and now being with Arizona Public Service Co., which is quite sensitive to the purpose of this conference by having a program of some 10 years' history already, I am aware of the problems on a nationwide scale. Also from my experience in political life for 12 years, based upon intimate knowledge of municipal and state government, I honestly and humbly submit these suggestions.

It is strongly urged that this great plan envisioned for the preservation and enhancement of America's natural beauty, be intensified and given a national impact. An interim approach of analysis, followed by Federal legislation as may then be deemed necessary, would put practical application to work, enlist broad citizen participation and place the bulk of responsibility of local beautification upon local units of government.

In this manner the President's vision for America would attain an immediate start, gain momentum rapidly, and result in a great chain of accomplishment across our land.

Dr. JOSEPH O. YOUNG. A recently published Gallup poll showed that a very low percentage (the recalled figure is 3 percent) of our people feel that the government should conduct a major program of beautification. The people gave it a low priority as compared to participation in programs like health and education. Must we interpret this as meaning that people abhor the intrusion of government into the area of beauty? Or can it be construed that most of our people do not yet believe it is feasible to achieve lasting beauty on the scale of the continent?

I think this poll means that our people are still unaware that our national affluence now permits us feasibly and economically to paint our picture on a canvas as large as the Nation itself. Yet this is what we have been doing, although we have not been inclined to think of it that way. Much of what we have done is good and much is bad. Therefore, let our first focus be on education in aesthetics.

It is not lack of material capability that holds us back; nations poorer than ours have achieved beyond us. It is not a fundamental

incompatibility between beauty and efficiency that holds us back; we have architects capable of the necessary synthesis. We need an awareness, an awakening of our people to the magnificence of the opportunity within our reach. Let us go forth from this conference dedicated to the fulfillment of a new synthesis of American beauty, armed with the knowledge that all the necessary physical tools are at hand to carry out the President's injunction for American beauty.

Many are here in the cause of preserving our great scenic spectacles. With this we can all concur. In this, government has made a great contribution and must continue to do so. But beauty must be everywhere. As the First Lady said—"perhaps most important is the single citizen who plants a tree or tends a flower." It is the planting of trees and flowers by Europeans that does so much to send Americans home from Europe aglow with stories of its beauty. Let us concentrate the light of this conference on the gentle, subtle and placid, homespun beauties of our cities and our farmlands.

Few Americans as they race from the Atlantic to the Pacific, from the Appalachians to the Rockies, pause to contemplate the greatest physiographic feature of our continent, the vast interior lowlands and plains. Let me draw attention to just one opportunity in this great interior for education, for history, for play, and for beauty. Interstate 80 parallels the Platte River within a mile for over 100 miles from Grand Island to North Platte, Nebr. The stream is almost totally developed for use which has created a new, beautiful, and productive diversity in the valley and even beyond it. The entire valley is sand and the least excavation of a few feet results in a pool of pure, clean water. Many pools have already been made as a source of sand for the road. Let the people acquire this strip a mile wide and 150 miles long. High accessibility is already achieved by the interstate and its many interchanges. In the midst of this great agricultural province let us use this strip to develop a park or outdoor museum in a new dimension to tell the story of our land and water. Let the history be told here of the great romantic achievements of the Oregon Trail, the Mormon Trail, the Pony Express, the cross-continent railway. Let us rehearse here the opening up of a new empire on the great plains by our pioneers, our irrigators, our farmers, and our ranchers. Let us incorporate a few real farms and ranches so the millions from our cities can see how they are fed and can really appreciate the productivity and pastoral beauty of our farms. Let them see that beauty and efficiency go

hand in hand. Let them realize here that this magnificent agriculture has freed our people from drudgery and trial and created in America a new diversity of beauty. In this vast sandbox, let us prepare a playground for our children. Let's give the kids a place to relax and enjoy as their parents drag them across the continent to view the advertised spectacles which the youngsters are not yet ready to appreciate.

In his remarks on scenic roads and parkways, Kevin Lynch drew attention to the city as scenery. May I add a word of support. In proper perspective our cities have great beauty. Have you observed Manhattan at night, or the Nebraska capital rising in the distance out of the plains, or have you stood at dawn on the Chicago planetarium watching the morning creep over the vast bulk of the city? Those who have will appreciate Wordsworth's description of London in his "Upon Westminster Bridge."

All our people ought to learn some appreciation of this sort. Only then, as a nation, will we realize that, "The Lord God planted a garden on earth and put the man in the garden to dress it and to keep it."

It may be true that great works of splendor and beauty have been built by autocratic societies but America in its vastness needs and can have many diversities of beauty. Let us beware of the stereotype of the uniform national approach. Rather we must call on all our people. Let us avoid a monolith by using local people, local artists, local education, and local research.

It is not enough to preserve our spectacles, though that must be done; it is not enough to preserve remnants of native vegetation, though that must be done; it is not enough to preserve wilderness areas, though that must be done; it is not enough to hide our junk and curb billboards, though that must be done; it is not enough to create greenbelts around our cities, though that must be done. Beyond this we must marshal all our talent, all our technology, all our wealth and power, indeed all our people, with all their diversity, to this worthy task. We must stifle our inhibitions and in a new freedom we will achieve a new and ever renewing synthesis of America as a work of art whose eternal beauty shall not fade.

REPORTS OF THE PANEL CHAIRMEN

Tuesday, May 25, 1965

The Conference Chairman, Mr. ROCKEFELLER. I want to say to you all that we have a tremendous debt of gratitude to the President for making this conference possible. We are especially grateful to Mrs. Johnson. She got us off to a fine start with her opening remarks and demonstrated her personal interest by sitting in on the panel sessions these past two days.

We have a debt to a great many other people as well. First, there are our panel chairmen, who have not only worked so ably here, but have spent many hours and days preparing. The panel members who served with them were equally dedicated, and they did a brilliant job.

Then, those of you who have come to these meetings as conferees and observers have added enormously. I only wish we had had more time for your questions and comments. It is just one of the frustrations of a conference that time is such a limiting factor.

The people in the Government agencies have been fantastically cooperative. We are especially grateful to the department heads who make up the Recreation Advisory Council. They have advised us all along and it meant a great deal to have them meet with us this morning.

The State Department has put itself out in making these magnificent facilities available to us. I know no equal of the set-up we had for the buffet luncheons.

Let us also give thanks to the press. I know the conference has been difficult to cover, but they have done an extremely good job, and this is most important to our efforts.

Finally, I want to mention two individuals in particular: William H. Whyte, Jr., and Henry Diamond. They were the conference co-directors on both the substance and the form, and without their leadership we could not have had this conference.

Now, we have something over one hour for these final reports. Our panel chairmen realize it is impossible to make a complete report in that time. They each have five minutes. They will tell us what concerned them most, and I hope you will all understand that they have this limit.*

Federal-State-Local Partnership

The Chairman, Mr. GODDARD. The President has issued a call for a "creative federalism." Preservation of the natural beauty of our Nation will require wholehearted cooperation and creativeness among all levels of government and the people they serve.

This panel recommends at the Federal level:

1. The establishment of a National Council on Natural Beauty and Recreation. This Council would broaden the present Recreation Advisory Council. The panel recommends a permanent, Presidentially appointed Chairman within the Federal establishment. The President should also appoint a Citizens' Advisory Committee on Natural Beauty and Recreation which shall advise the President on setting priorities for national policy.

2. The Council on Natural Beauty and Recreation should be provided a full-time staff competent in fields of environmental planning, resource conservation, quality standards, recreation, and community planning.

3. The President should issue an Executive order instructing all Federal agencies to take advantage of and consider the environmental, aesthetic, and recreational aspects of their programs in order to improve and maintain the natural beauty of the United States, and to establish, as a performance requirement of Federal grants, that all projects contribute to local comprehensive plans for recreation and natural beauty.

4. The President should ask the new Council, as its first task, to undertake a review of the many current Federal grant-in-aid programs dealing with our environment, recreation, and natural beauty, to recommend steps for eliminating program conflicts and duplication, and to identify means to facilitate State and local participation with a minimum of confusion.

5. A shortage of qualified personnel threatens to be one of the

*To hew to this limit some of the panel chairmen had to abridge their reports; in this chapter the reports are printed in full.

more serious bottlenecks in accomplishment of our objectives. A major Federal effort should be made to provide programs of technical assistance, training, and research, in the preservation of natural beauty and recreation.

6. Both the Interior and Housing and Home Finance Agency programs for park acquisitions should permit private contributions to help meet local matching grant requirements.

7. The proposed Intergovernmental Cooperation Act of 1965, S. 561, cosponsored by 40 Senators, would contribute to the foregoing objectives by assuring local and regional planning review of proposed Federal projects affecting community appearance.

The States, as well as the Federal Government, must take steps to strengthen their organization, financing, and coordination to play their pivotal role in the Federal-State-local partnership.

1. The governor needs a staff arm or unit concerned with coordinating and developing a consistent State policy among the many State programs affecting natural beauty, and providing guidance and assistance to local governments in their efforts.

2. Broad and permissive State enabling legislation is needed to permit local governments to act and finance recreation and natural beauty projects. Legislation should especially provide authority to permit use of easements and other new legal tools.

3. State legislation governing regional, county, and municipal planning and zoning should be amended to direct these planning agencies to prepare plans for developing and salvaging the beauty potentials of their area; make recommendations for necessary funding and organization to carry out their plan; and review all proposed Federal, State, and local projects for conformance with agreed-upon natural beauty and recreation goals and with comprehensive development plans.

The Townscape

The Chairman, Mr. BACON. While stressing positive steps that should be taken to implement the objectives of a national policy for natural beauty, as outlined by President Johnson in his special message, the Townscape Panel most strongly emphasizes these facts:

Efforts made to date to beautify the American city have been totally inadequate.

Government, municipal, State, and Federal, is responsible for much of the disorder and clutter of our cities, and must assume the leading role in a concerted attack on these problems.

Likewise, private industry has been a major offender in fouling the American environment. Private industry must, therefore, play a much larger and more positive role in the development of beauty in cities. This should be done not only through more careful attention to industry's own environs and waste disposal, but also through private encouragement of a higher order of beauty, sponsored and financed by private business.

As a vital first step, the panel recommends immediate passage of the Housing and Community Development Act of 1965, containing provisions for urban beautification and expansion of the existing open space land program. This badly needed legislation should carry with it full funding as recommended by the administration. Such amounts are adequate only to gain a foothold on the massive problems of developing more and better city parks and beautifying urban areas. A much broader Federal effort should be made as soon as possible.

The panel also wishes to put special stress upon the new provisions of the proposed 1965 legislation pertaining both to urban beautification and the development of neighborhood centers, as these provisions can be applied to impoverished areas of cities. These programs, limited as they are in funds and scope, should be particularly directed to the poorest areas of cities, to insure that all American families share in the effort to beautify our townscapes.

There must be a much greater, more intensive push toward better education for beauty in the cities on at least two levels:

(1) We must develop in the youth of the Nation a greater awareness of and sensitivity to all aspects of the environment. They must be made aware of what comprises a stimulating environment and what every citizen can do to insure its development and maintenance. Perhaps most important, we must involve young people in the actual development of a stimulating environment. Programs to accomplish these objectives should be established and administered locally, but with aid from both private industry and the Federal Government.

(2) There must also be a nationwide program of education for our urban leadership, public and private. Many of the conditions which are blighting our cities today are the result of ignorance,

apathy, and neglect. These are forces which can be dispelled, and education can be our major weapon in this task. Such a program should be initiated immediately, with the help of Federal, State, and local funds as well as contributions from foundations and private industries. It should be aimed not only at mayors, city councilmen, county supervisors, boards of education, zoning and building commissions and planning boards, but also at heads of private industry such as insurance companies and other large industries which bring to bear powerful influences on the urban environment. All must be made to see most clearly their responsibilities, as leaders, in the development of a more stimulating environment.

The technological capacity of American industry must be harnessed with our design knowledge if we are ever to create a higher order of urban environmental design. To achieve this objective, the panel recommends that the professional societies concerned create, with Federal aid, a National Urban Design Center. Such a center would coordinate the work of architects, planners, landscape architects, industrial and interior designers, manufacturers and research corporations—with all who contribute to total townscape design. The center would also coordinate the needs of all agencies of Federal, State, and local government who post signs, specify materials and fixtures, determine spaces and relationships and uses. The Federal Government should assist, through grants and other types of aid in the establishment of a National Design Center and support its activities and educational program in the same manner as it assists the Highway Research Board.

Every city should develop a comprehensive design plan embracing elements of the environment, as part of its comprehensive planning program. The Federal Government should require that such design planning be developed in comprehensive planning before Federal development funds are released to a city or urban county. Every American community must have an organizational framework for performing the functions of sound environmental design. Where such a framework does not now exist, it should be created as soon as possible. In some cases, it might be feasible to establish a special agency to oversee all elements of design in city development. In every case, the function of urban design must be performed in an effective and comprehensive fashion.

Moreover, comprehensive design planning must be an integral part of the decision making function of local or regional govern-

ment. Design should not be allowed to become a meaningless exercise, existing only in paper form to clutter up the municipal library shelves. It must be a living, continuing, dynamic function of city government, made meaningful in the everyday lives of all the city's people.

There must be a much broader effort made throughout the Nation to preserve historical structures and areas. A higher degree of public awareness of what is worth keeping, particularly in terms of local values, must be instilled and developed if preservation is to become a source of local pride. The current inadequate program of education for more effective historic preservation must be broadened and intensified.

Specific action proposals for historic preservation include:

1. An inventory, throughout the Nation, of major landmarks, taking into account a wide range of historic, architectural, and unique community values. The National Park Service program for classifying and identifying historic buildings is inadequate to do this broader task.

2. A program of certification of historic and landmark structures or areas, with accompanying legal protection.

3. The creation of historic districts, wherever appropriate, including the whole of some historic towns.

4. A special program of compensation to private owners for losses suffered or for damages accruing from delay or deprivation in legal protection cases.

5. Special FHA mortgage insurance for improving landmark structures.

6. Expanded public programs of ownership of historic structures and areas.

7. Machinery should be developed for a coordinated private-public program of preservation. The Federal Government should take the lead in this endeavor.

8. The panel underscores the President's call for more funds for the work of the Federally chartered National Trust for Historic Preservation.

The panel recommends a thoroughgoing overhaul of Federal, State, and local tax policies to encourage the implementation of natural beauty policies. Specific areas for further study would include possible revision of tax policies to encourage greater private investment in the preservation of approved historic and landmark struc-

tures and areas, through revision of income, inheritance, property, and admission taxes. Local taxing bodies should also review policies which penalize property owners who maintain their properties in a decent fashion.

Any survey of taxation policies should consider a broad range of possible tax actions which would encourage business and private citizens to maintain properties in orderly and aesthetic fashion.

The planting of shade trees must become a paramount objective of all those who would improve the appearance of cities. A prompt start should be made to improve and coordinate the technical process of large-scale mass moving of big trees and the reduction of the costs of such operation.

American cities should profit from the British example and make better use of forest lands or large estates in or near cities as a source of trees for replanting in small neighborhood parks as well as along streets and boulevards.

Tree planting programs should proceed within the broad context of the previously recommended urban design plan, as part of the comprehensive planning process.

The urban highway is often cited as the worst defiler of townscape, and the principal reason why it seems so difficult to develop and maintain any semblance of order and beauty in cities.

Yet the panel believes the highway can contribute measurably to a higher order of beauty in metropolitan areas, if it is carefully planned, designed, and controlled.

Most important, highways must be planned within the total urban design context of the metropolitan area, rather than as something apart, designed strictly for moving numbers of people, in cars, from here to there. In this context, highways can be an important element for unifying the diverse components of vast metropolises, and can serve the city's people in beauty as well as efficiency.

Parks and Open Spaces

The Chairman, Mr. SIMONDS.

I. Federal action

1. The Department of the Interior, HHFA, URA, and other related agencies should undertake appropriate research and prepare manuals and bulletins providing:

(a) Model legislation for State and municipal consideration to assure appropriate open space and conservancy programs and the legal basis for rights in land.

(b) Guidelines for local public action programs.

(c) Procedures and legal basis for the acquisition and preservation of open spaces.

(d) Examples of successful application.

2. Regional conferences and seminars on Urban Park and Open Space Planning should be initiated.

3. A study of the economic values of urban parks, parkways, and open spaces, should be initiated with due recognition of intangible values, and recommendations developed therefrom and made available.

4. We urge development of the proposed scenic roads program as one of the major contributions to a nationwide natural beauty program. This does not relieve any Federal-aided agency of the responsibility to insure that other roads are attractive.

5. We urge Federal agency and public support for the provisions of title VIII of the pending housing bill and the open space bill recently introduced by Senator Williams.

6. We urge that the Corps of Engineers be instructed to give greater consideration to natural beauty in all its water resource developments, particularly those affecting rivers and navigable waters within urban and metropolitan areas.

7. We urge that there be a Bureau of Public Roads requirement that grants-in-aid be contingent upon more effective coordination of highway plans with comprehensive and open space recreation plans of State and local governments.

8. We urge establishment of Federal parks in urban areas with emphasis on the protection, maintenance, and interpretation of historic and natural resources of national significance.

9. Adequate financial aid should be made available in Federally aided programs (such as public housing and urban renewal) for such works of art as sculpture, fountains, plazas, civic squares, and courts.

10. The Federal Government should require local governments to include adequate open space provisions in local zoning ordinances as a prerequisite to a grant under the Land and Water Conservation Fund Act—comparable to the present Federal requirements for an open space land grant.

11. Federal technical and financial assistance and materials should be made available to local governments in urban areas for the planning of parks, aboretums, botanical gardens, conservatories, zoos, aquariums, and tree planting programs.

12. The Land and Water Conservation Fund Act should be supplemented to guarantee that a reasonable portion of the funds are distributed to local governments.

13. An increased percentage income tax deduction should be allowed for donations of land for public open space and recreation uses.

14. Federal law should permit local and regional open space and recreation uses to have at least equal consideration with health and education uses in the acquisition of surplus military and other Federal lands. Open space and recreation uses should also be afforded equal pricing terms.

15. The Land and Water Conservation Fund Act should be amended to require as a condition of eligibility that States provide to their political subdivisions technical assistance in outdoor recreation-open space program planning.

16. There should be developed a national program designed to utilize plants and shrubs developed in the National Arboretum and Federal agency nurseries for the public areas of our cities.

17. A national program should be developed under appropriate conference sponsorship to utilize our public arboretums, experimental stations, and botanical gardens as research centers with an educational component tied in with the science classes of the secondary schools of our Nation.

18. An updated manual should be prepared outlining and correlating the essential provisions of all Federal recreation, open space, urban development, conservation, and natural beauty programs.

19. We urge a massive national effort aimed at establishing beauty in design as a major consideration in all Federally-assisted urban construction programs.

20. We urge amendment of the Housing Act of 1949 to add to the declaration of national housing policy language that will make explicit the government's objective to provide leadership in the achievement of beauty in all communities.

21. We urge establishment of a national council on urban design for the purpose of reviewing Federal-aid projects to secure design quality.

22. We urge establishment of a new Federal program of grants to the cities for park operation and maintenance. These grants would be in addition to current local budgets which should be subject to normal increases. The Federal Government would lease city "classroom parks" for training park operation and maintenance personnel, and for experimental renovation and the development of new maintenance techniques. The cities would have to agree to hire trainees from the Federal training program.

23. We urge legislation by which donations of easements or development rights to public agencies for open space, outdoor recreation, or scenic purposes would be deductible for income tax purposes.

II. State action

1. Every State should initiate a grant-in-aid program (such as those in New York, Connecticut, Pennsylvania, and California) to encourage open space-recreation planning, acquisition, and development by local governments.

2. State legislation should be adopted, where necessary, that would make it a matter of public policy to recognize parks, recreation areas, and open space as serving a public purpose.

3. All States should encourage cooperative school-park planning programs through financial incentives for all new schools. They should encourage and assist year-round use of schools and parks as an integral operational unit.

4. State highway departments should be required not only to coordinate plans with but be under strong compulsion to conform with the comprehensive plans of every political subdivision through which State highways pass. Necessary review and appeal procedures would have to be established.

5. Rigid State laws should be enacted to regulate strip mining, borrow pits, and gravel pit operation, including restoration of the landscape.

6. Effective water pollution and air pollution legislation should be enacted.

7. There should be legislation to develop, protect, and maintain State parks in urban areas particularly for the development and maintenance of natural or historic resources of statewide significance.

8. States should undertake comprehensive river basin studies with special consideration given to the urban environment.

9. State encouragement should be given to quasi-public conservancy-trusteeship organizations.

10. Governors should exercise vigorous leadership to coordinate the many diverse recreation and open space activities within each State. They should recognize that open space programs must be approached on a statewide scale.

11. State legislation should be enacted to permit the formation of regional park agencies, and appropriate financial aid programs developed.

12. States should catalog historic treasures and provide coordination for a statewide program of historic preservation and interpretation.

13. States should enact legislation which will reduce taxes on private country clubs, private open malls, courts, plazas, etc., and allow cities to have first option on acquisition rights at open space value.

III. Local government action (city, town and/or county)

1. City zoning ordinances should be amended, where necessary, to provide appropriate conditions for cluster development.

2. Local governments should encourage conservation of open space and natural beauty through the use of such tools as conservation zoning, tax deferral, flood-plain zoning, and scenic easements.

3. Encouragement should be provided for the establishment of conservancy-trusteeship organizations with tax exemptions on properties acquired.

4. Local government should establish and participate in regional park agencies where appropriate.

5. Environment studies should be included as a part of every urban planning program. Urban parks and open spaces should be related to topographic features that make the city unique. Systems of parks and open spaces should be created.

6. Planning techniques should be developed to best utilize for open space purposes lands depleted by their use as strip mines, borrow areas, and gravel pits.

7. Conservation zoning of steep slopes and wetlands for appropriate uses should be encouraged.

8. Legal provisions should be developed for donation of open space lands to local governments with assurance of continued open space use under binding regulations.

9. Reimbursement in kind (land of equal open space or recrea-

tional value to the affected locality and to the metropolitan area) should be mandatory where highways or other uses take park land.

10. All natural and open space resources within metropolitan areas should be inventoried and plans drawn for their preservation and/or proper development.

11. Flood plain zoning regulations should be adopted to preserve, by prohibiting urban or intensive development, all stream and river basins to 50-year or appropriate flood level—but permitting agriculture, recreation, or parkway uses. Supporting lands and natural topographic features should be included as the spine of a lineal park system embracing the rivers and streams.

12. There should be planning for both vehicular parkways and pedestrian walks and trails, including provisions for bicycle and bridle paths.

13. Policies should be developed that will insure that State and local departments effectively coordinate antipoverty training, Job Corps, and similar programs with their open space, recreation, and conservation programs.

14. Where a comprehensive open space plan is established by a governmental unit, development should be prohibited in designated open space locations through a development freeze order of six months maximum duration. Appropriate legislative authorization would be required.

15. Local governments should carefully consider and, if possible, develop their water supply reservoirs as park features with these parks open to the public.

16. Local and regional park departments and conservation agencies should have first refusal of tax-delinquent lands.

17. Local governments and regional park authorities should establish an adequate revolving fund to permit open space acquisition without delay as critical lands become available.

18. A street tree planting program should be initiated in every urban area.

19. Local governments should exercise rigid control over outdoor advertising in relation to parks and open space.

20. Aggressive programs should be undertaken to eliminate existing overhead transmission poles and lines and to require future installations to be placed underground.

21. Means should be explored by which the use of salt and chemicals injurious to plants can be replaced with other snow removal ma-

terials. The use of pesticides and toxic weed killers should be eliminated or rigidly controlled.

22. Restoration of our waterfront areas should be given high priority in the comprehensive planning by local governments—with attention to utilizing our city lake and river systems for boating, fishing, and other leisure pastimes.

23. Funds and staff should be applied to the development of more imaginative and farsighted long-range plans for the structure of our cities.

24. Downtown parks should be strategically located to ventilate and beautify the central business district. Here different needs must be met—lunchtime picnics; places for shoppers to meet, rest, and chat; art shows; concerts; and the selling of flowers.

25. Every public library should include an “outdoor room” to provide open space for reading and studying in pleasant outdoor surroundings, and perhaps facilities for exhibiting local art and sculpture.

26. There should be determined efforts to light our parks properly, patrol them adequately, and insure the public safety in their use.

27. The use of parks and open spaces is urged to dramatize the entrances to our cities, to highlight and enhance historic structures and public buildings; to open up vistas, and to provide relief from often monotonous urban development.

28. Local councils should be established to align the many groups and associations at work on various aspects of urban design and open space planning and to coordinate with the governmental agencies in the achievement of urban settings which provide convenience, comfort, diversity, dignity, and beauty.

29. The State and Federal role is vital but limited and should remain so. It is proposed that local officials be encouraged to recognize and accept direct responsibility to the electorate for the quality of the urban environment. They in turn must rely heavily on skillful and imaginative planners, landscape architects and other professionals.

30. Greater emphasis should be placed upon the design of small crowded spaces in urban areas. These spaces should afford opportunities for programing a variety of leisure time activities of interest to the individual as well as the family unit in the immediate neighborhood of home.

31. Parks and open spaces should be planned to accommodate

daytime and nighttime activities in urban centers throughout the entire year.

32. Parks and open spaces should be located so as to insure that they are fully accessible to the interests and needs of all age groups.

33. Emphasis in open space planning should be placed upon the correlation of the many factors of physical and social significance—such as building types, trafficways, trees, relationship to neighboring communities and to places of work, play, school, and worship.

34. Open space and facilities should be placed and designed so as to make them a part of the daily living environment of the people.

35. Barriers to participation should be removed and opportunities provided for all citizens to use open space and recreational areas. We must provide contact with beauty for all. In the words of President Johnson, "It means not just easy physical access, but equal social access for rich and poor, Negro and white, city dweller and farmer."

36. We recommend development of a citywide beautification committee composed of public and private interests that can coordinate total community efforts in a cleanup, fixup, planting, and improve the townscape program.

37. We recommend adaptation of open space planning of a dimension similar to Conant's theory of the assignment of our best teachers and facilities to schools in our slum and blighted areas. It would involve the application of new concepts in the design and social use of green space in the deprived and depressed areas of our American urban centers.

38. Effective legislation and administrative procedures must be established to prevent the disposition of land now in public ownership until it has been conclusively established that it is not needed for park purposes.

39. Land in public or quasi-public ownership, or the air rights above it, should be considered for open space-recreation use.

40. Rather than preempt open space, garages and parking spaces should contribute their roofs for open space purposes.

41. In the planning and construction of our urban expressway systems, adequate land should be taken to insure not only planted buffer areas between the expressway and the neighborhood, but to yield park and play areas as well.

42. Legislation should be enacted allowing subdistrict park development of open spaces, as in cluster developments.

Water and Waterfronts

The Chairman Mr. CLAY. Our panel has found "gook" as well as "books" in running brooks.

Convictions arise from that discovery. It was the conviction of the Panel on Water and Waterfronts that:

1. We must reverse the historic tendency to use watercourses primarily for transportation and to carrying of wastes, and plan for their protection and development to enhance human life and the quality of man's environment.

2. We must protect and improve entire river basins and not merely a few isolated sites.

3. "Stream renewal" from end to end, treating water and contributory lands in all their interdependent aspects, should be adopted as a national policy comparable in breadth of concept to urban renewal.

4. The price of water-related lands is rising; now is the time to buy, lease, and protect them on a crash basis.

5. The historic American overemphasis on economic costs and benefits in building water control structures should be reversed. We must insist on beauty as one of the essential elements in water-related planning.

The panel believes that these objectives can be accomplished. We have many suggestions for improved ways of acquiring and protecting waterfront lands, for better urban planning and waterfront design, for building beauty into the process of water resource development, and for strengthening water pollution control.

We recommend that outstanding water areas and watercourses in the United States, such as San Francisco Bay, Lake Tahoe, and the sources of major rivers be designated national scenic and recreational landmarks; and that all decisions affecting their development be reviewed by a Presidentially appointed board of citizens concerned with the quality of the total environment involved. All Federal plans for water resource development should be reviewed by this board.

Public and private protection should be extended to all natural shorelines by acquisition, zoning, easements, options, and other measures, now. As a beginning, the source of the Potomac—this great historic river flowing through the National Capital—should be quickly identified and permanently protected. Private owners of property should be encouraged in every way to collaborate with public and private agencies, as is being done in protecting the Mount

Vernon Overview on the Potomac. Individual leadership and co-operation should be thus stimulated.

Water and waterfronts need special treatment in all city plans. Historic waterfronts, especially, should be preserved, restored, and protected—Annapolis, Savannah, New Bedford, Alexandria, Newport, R.I., and many others. Waterfront land and access should be gradually limited to those activities which actually require waterfront location or access.

To improve urban planning we recommend the establishment of Urban Waterfront Districts, somewhat along the lines of the historic and highly successful Soil Conservation Districts. Existing watershed protection programs should be modified to include multipurpose protection, not only in the agricultural areas where this now applies, but in urban areas as well. The same assistance that is extended to farmers should be extended to suburbanites and city residents.

New techniques for extending the use of waterfront lands to metropolitan residents should be developed. There is far too little actual water's edge available to the typical city resident. The arts of the architect and landscape architect should be coupled with the engineer's skills to open up the edge to the populace. Fill and rubble should be used creatively as a resource, rather than as a waste material, to complement the urban design plan. At the same time, we acknowledge the dangers involved and strongly urge against further filling of major bodies of water unless this is done in accordance with an urban design plan.

Urban renewal powers should be used in a comprehensive way to improve waterfronts and set them free from transportation barriers, blight, and dumps in order to realize their environmental values.

State and local actions to integrate land-use planning with Federal water resource development must be encouraged. The pending Water Resources Planning Act should provide that beautification and scenic values be a specific concern of all Federal, State, and local agencies involved. Federal funds should not be made available for flood control facilities unless the communities concerned provide adequate flood plain zoning.

Strengthened water pollution control is needed as well. The panel supports the strengthened water quality standards proposed in pending legislation and believes in a national policy, either by amendment to the Federal Water Pollution Control Act or otherwise, of a basic level of secondary treatment as a floor for sewage and industrial wastes. There should be greatly increased financing for research

to improve waste treatment technology. Special efforts should be made to clean the surface of rivers flowing past urban areas, through sweep boats and other techniques.

In conclusion, we believe that there should be an effective demonstration program for comprehensive basin environmental improvement in every major section of the Nation, beginning with the Potomac River Basin.

Design of the Highway

The Chairman, Mr. BABCOCK. Our panel addressed itself to the specifics of highway design and particularly the need to have highways compatible with the areas they serve. Because of time limits and the subjects covered by other panels, we limited our discussion to the existing highway program.

Our opinions were diverse, and our discussions were highly spirited.

It was the consensus of the panel that the major problems of highway design are in the urban areas, but that highway planning should be considered as one part of the total transportation plan and an integral part of the total urban planning.

The highway in the urban setting must be compatible with the existing and planned development of the areas it serves.

Highways can be compatible with the urban areas if their construction is appropriately integrated with parking facilities, shops, offices, housing, and other parts of the city. In this connection, more imaginative design must be used in building freeways on elevated structures, or at ground level, or below, making much better use of the space above or below them.

It was the consensus of the panel that the need to protect parks, open spaces, scenic, recreational, historic, and cultural features of the urban areas should be given greatly increased emphasis in highway planning. New techniques must be developed that will give greater weight to these factors as contrasted to the traditional factors of traffic service and initial cost.

To achieve the goals of a fully integrated highway program really requires the increased use of planners, landscape architects, engineers, and those of many other disciplines, all united in what we hope will be an "urban design team."

There is an increased need for research to develop improved

concepts so that highway planners and, indeed, all of us, can deal with the problems of making highways more aesthetically attractive and compatible with the environment.

The beautification of our country through the highway program requires not only increased attention to aesthetics in new rural highway construction, but a major program to improve existing highways. This should include where necessary the acquisition of additional rights-of-way for buffer zones alongside the highway, the creative regrading and landscaping of the roadside and the screening or removing from sight of objectionable views.

It has been said that the highway in a rural setting, should fit the landscape like a deer in the forest rather than a bull in the china shop.

The results of our panel's discussion and the questioning of the participants can be summarized briefly. Highways are built for people—those who use them and those who live alongside them. They must not be a scourge upon the landscape. They must serve and enhance the areas through which they pass as well as serve traffic.

If I might speak as a highway administrator for a moment, I think that serious consideration should be given to more adequate funding so that this program which must become a reality, can become a reality.

Scenic Roads and Parkways

The Chairman, Senator FARR. The panelists on Scenic Roads and Parkways by way of a preliminary statement point out that, since the average American spends approximately two months of his life each year behind the steering wheel, not counting his vacation (which is also behind the wheel), they believe that the American motorist deserves the very best view from the road of "A More Beautiful America."

We wish to point out that in no domestic Federal program is more money expended than on our highway program, and this program is solely supported by the highway user.

Our panel recommends that a national policy and program for scenic roads and parkways must now be formulated, authorized, and funded. We believe that after 1972, when the National System of Defense Interstate Highways is completed, a major portion of

the highway trust fund should be used to fund scenic highways, parkways, and recreation roads.

Basic concepts essential to all parkway and scenic highway programs must be recognized:

1. A Scenic Highway is a well-designed road, the corridor of which is protected, particularly in areas of high aesthetic or cultural value.

2. A Parkway is a scenic highway primarily for noncommercial traffic, with full or partial control of access, and actually within a park or a region of parklike quality.

3. The Scenic Corridor is the area reasonably within the line of sight beyond the highway right-of-way, which imparts to the traveler its scenic qualities and makes possible a variety of recreational opportunity for the motorist, whether he is in motion or at rest.

4. The Scenic Easement is a device to protect the Scenic Corridor by acquiring less than the outright purchase of land and permitting the continuance of existing compatible uses.

The Scenic Corridor is an essential element of the scenic highway and parkway and must be protected at the earliest possible date. Encouragement should be given at the Federal, State, and local levels for protection of the scenic corridor.

We urge purchase of protective buffers adjacent to the right-of-way or acquisition of scenic easements. Also, outright purchase of excess land adjacent to the right-of-way to be held for later disposal of the unneeded portions under proper control. Severance damages are frequently more expensive than the outright purchase of the entire parcel.

We urge zoning by local government agencies.

We urge proper screening of junkyards and other eyesores and we urge coordination of land acquisition activities between highway programs and those of other conservation and recreation programs; for example, the California West Side Freeway and Aqueduct program.

Financial aids to scenic corridor protection should include making mandatory the use by the States of section 319 funds; use of Federal aid secondary funds; use of land and water conservation funds for corridor protection; use of Federal open space money for corridor protection; use of State and local money for corridor protection; and tax incentives.

We believe there are some tax incentives that should be given serious consideration; for example, allow Federal personal and corporate income tax deductions for land gifts and payment of land in lieu of money; allow Federal estate and State inheritance deductions; permit lower local assessment evaluation in the corridor until the character of the development changes.

Gifts and memorial bequests of land and scenic overlooks should be encouraged.

At no additional cost to the public treasury, the Federal government must encourage development of the amenities on toll roads.

Modest tax assessments on outings associated particularly with recreational pursuits should be considered, not only to support parkways, but also to help rid our highways of litter that mars their beauty. For example, it is estimated that it might cost the American taxpayers \$100 million to remove all types of litter from our highways. A portion of this revenue could be used for Job Corps or similar conservation efforts.

Preference should be given by the Federal Government to those States which have taken the initiative to enact legislation establishing commissions to develop the program of scenic roads and parkways.

Aesthetic qualities, as well as safety and good engineering principles of highway design, are compatible, must be incorporated specifically in highway planning operations, and must be considered simultaneously as to a total design, such as corridors, interchanges, signing, landscaping, etc.

To accomplish these goals additional tools should be used.

A new synthesis of engineering, landscape design, and aesthetics must be a part of every new program and highway improvement.

A significant portion of the 1.5 percent research funds presently available under the Federal Highway Act should be devoted to research and planning to develop the design criteria and techniques to fit the roadway into its environment in both the rural and urban areas.

Demonstration projects should be encouraged in the schools of engineering as well as in-service training of roadbuilders who must be encouraged to teach these new critiques and techniques, including highway aesthetics.

Local review boards and local design consultants should be used by the States to assist in improving the quality of highway design.

Complementary facilities consisting of roadside parking areas,

scenic overlooks, camera stops, camping grounds, boat-launching sites, etc., are essential recreational elements and should be included where possible in each project.

The scenic highway concept should be extended to the city highway, as well as the rural area, in view of the fact that the majority of the American people reside in metropolitan areas.

The city highway should be designed together with the strip of land through which it runs; must be integrated with other functions so as to include the use of air rights; and make available structures above, below, and alongside the road. The city highway should be designed to show up the city to maximum advantage to the highway traveler, by blending into the city itself.

By means of its highways, a city can be as fascinating as a forest. Urban roads should be designed as a sequence of events to make them a dynamic part of the urban area. Urban highway planning and design should be coordinated with other urban design and renewal efforts.

We believe that a series of White House awards or citations in the amenities should be carried out and the President should designate the "White House" or the "President's Highway of the Year."

The First Lady, having set a fine precedent by her scenic highway and landmarks tour in Virginia, could encourage the cooperation of the wives of the governors to conduct similar tours in the other States.

Regional conferences should be called by the governors to implement highway beautification, scenic highway and parkway programs.

Citizen groups in all States should be encouraged to join forces in a unified organized effort to support legislative and administrative action in behalf of high standards for scenic highways and parkways. The Planning and Conservation League for Legislative Action, recently formed in California, may serve as a prototype.

Authorization should be given to the use of uniform symbols for easy identification on those State and local scenic roads and parkways meeting Federal standards.

Due consideration should be given to a reevaluation of existing roads, the upgrading of roadside amenities, as well as the establishment of scenic highways and parkways in new locations.

Scenic roads and parkways should be provided in close proximity to the population centers of the Nation to be within reasonable driving time for weekend use.

The Scenic Roadway and Parkway Study by the Department of Commerce and Recreation Advisory Council, which, among other things, includes going Federal programs, including National Parkways and the National Forest Recreation Ways, should be implemented by Congressional action at the earliest possible date. The target date for completion should be 1976, the 200th anniversary of the founding of our Republic.

We believe that when a dispute involving Federal funds occurs between a highway agency and a conservation agency within a State and cannot be solved at the State level, the Department of the Interior and the Department of Commerce should resolve the problem.

Every encouragement should be given to States and local communities to develop State and county scenic highway and parkway programs such as has been done in Westchester County with parkways, and in California with scenic highways.

The Federal aid secondary funds should be made available by Congress to help States inventory and now protect their rural roads in areas of high scenic or historical value by acquisition and protection of scenic corridors.

The funds should be used by the States in establishing at least one prototype demonstration scenic road or parkway in each State.

A highway program of any type or kind can be truly successful only when integrated with the total environment.

Roadside Control

The Chairman, Mr. IVES. The Panel on Roadside Control recommends the following actions be taken:

1. Amend 23 U.S.C. 319 to require the States to expend a minimum of 3 percent of their Federal-aid apportionments for the acquisition, preservation, and enhancement of scenic beauty. The Secretary of Commerce should be given authority to waive such requirement if a State proves such expenditures unnecessary.

2. Amend 23 U.S.C. 131 to provide that the grant of primary and interstate funds be conditioned with the requirement that the erection and maintenance of all outdoor advertising signs, displays, and devices in all areas within 1,000 feet of the outer edge of pavement of the primary system and interstate system of highways be controlled. A majority of the panelists were of the opinion that no off-premise advertising should be permitted in any areas adjacent

to the primary system or interstate system. One panelist (Mr. Tocker) was of the view that off-premise advertising should be permitted in commercial, industrial, and business areas without regard to their being zoned as such.

A vote was taken at a panel meeting following the panel session, and all panelists present, with one exception, voted to recommend that no off-premise advertising be permitted in any areas adjacent to the primary system and the interstate system. Senator Neuberger and Mr. Bridwell were unable to be present at this meeting. Senator Neuberger has requested that the report reflect that she would have voted to exclude off-premise advertising in areas adjacent to the primary system and the interstate system, except those zoned for commercial or industrial usage. Mr. Bridwell has asked that the report show that he would have voted to recommend that off-premise advertising be permitted in areas zoned for commercial or industrial uses and in areas where the land use is, in fact, commercial or industrial as defined by appropriate regulation.

3. Enactment of a Federal law conditioning the grant of Primary and interstate funds with the requirement that States prohibit the future establishment of automobile graveyards and junkyards within view of primary and interstate highways and that existing facilities be removed or screened from view.

4. Enactment of a Federal law prohibiting advertising on motor vehicles operating on Federal-aid highways which advertising is not related to the vehicle owner's or lessor's product or service.

5. That the grant of Federal-aid highway funds be conditioned with the requirement that each State establish an effective method for controlling the depositing of trash and other litter upon Federal-aid highways.

6. That the President appoint a committee to establish methods and ways for the ultimate disposal of scrap automobiles and other scrap materials. This includes: (a) regional scrap areas for disposal of such junk and scrap materials and the relocation of existing junkyards; and (b) furnishing assistance to local communities in the administration and financing the cost of disposition and the relocation of such junkyards.

7. That the Secretary of Commerce require each State to specify that borrow banks, spoil areas, and quarry operations visible from the Federal-aid highways be contour graded and treated as may be required to prevent blemish.

8. That the Secretary of Commerce require erosion proofing on all completed segments of Federal-aid highways to prevent siltation and pollution of water.

9. That the Secretary of Commerce establish an organizational unit responsible directly to the Federal Highway Administrator to assist States and local communities in adopting legal measures for controlling roadside areas.

10. That civic groups such as garden clubs, roadside councils, conservation groups, and similar organizations which are seeking to achieve the objectives set forth in the President's Message on Natural Beauty, be given an educational status for tax purposes in order that individuals and foundations will be encouraged to make contributions.

11. That roadside councils be organized in States that do not have such organizations at the present time.

12. That a national clearinghouse be established to disseminate information and to provide assistance to such councils.

13. That the Federal Government provide legal assistance to States whenever the constitutionality of State laws is questioned.

The Farm Landscape

The Chairman, Dr. GRAHAM. Less than 3 percent of our land is devoted to urban uses. Because of this fact, efforts to preserve and improve natural beauty and to create a more attractive America must rely heavily on what is done in rural areas. Some three-fourths of the land in these areas is in private hands. It therefore follows that for the greater part of America decisions about planning use and management of the resources which constitute the landscape rest in the hands of private individuals and their local organizations.

The panel gave special emphasis to the need to use existing organizations and institutions rather than to devise new ones, to approach preservation and enhancement of natural beauty by positive procedures, to maintain in all efforts maximum flexibility and diversity, and to recognize that our efforts are concerned as much with people as with resources.

The panel made 10 recommendations.

1. That use of land capability classification and other resource inventories be made a condition for local and area planning, land use determinations, and zoning.

2. That the President call on the governors of the 50 States to exercise leadership in total land use planning as a means toward the orderly development and enhancement of the landscape within the States.

3. That guidelines be formulated to assist States in developing appropriate legislation for zoning, tax structures, ordinances, easements, development rights, etc., that would protect open space and prime agricultural land; and that the President consider proposing to the governors the enactment of such State legislation.

4. That consideration be given by the Federal and State governments to a system of grants or tax concessions which would help offset revenue loss by local governments on land retained in agricultural or open space use.

5. That in all land retirement and cropland adjustment programs, preservation and enhancement of natural beauty be considered an associated purpose in the technical assistance and cost sharing provided through long-term agreements or contracts.

6. That preservation and enhancement of natural beauty be made an associated purpose of Federal programs of resource development and management, including technical assistance, cost sharing, grants and loans involving nonprofit organizations, private landowners, communities, and local subdivisions of government.

7. That public resource programs be strengthened and local leadership be encouraged to initiate and make more effective rural-urban cooperation in planning and action through such mechanisms as soil and water conservation districts, small watershed projects, resource conservation and development projects, planning boards, and other local organizations.

8. That professional training, research, and education services in our college and university system be expanded to deal with problems of landscape as a part of the total human environment; and that the President consider requesting these institutions to inaugurate appropriate programs within the several States.

9. That public land-administering agencies include natural beauty as a purpose in the management and treatment of all public land and water resources, with special attention to problems involving intermingled or contiguous private land.

10. That consideration be given to nationwide recognition of outstanding farm landscapes as "agricultural landmarks," comparable to the recognition accorded historic and natural history sites.

Reclamation of the Landscape

The Chairman, Mr. MOTT. The growth and development of the Nation demands more and more coal, sand, gravel, crushed rock, and lumber. Competition requires that these products be harvested more and more efficiently. Large trucks and trailers next year will move 2 billion tons of sand, gravel, and crushed rock to build bridges, highways, and buildings. At this very moment huge trailers, tractors, and power saws are bringing down with ease 200-year-old redwood trees, 4 feet in diameter and 200 feet high.

The scar on the landscape becomes larger and larger. Therefore, a sense of urgency must be felt in the recommendations which my panel wished to make.

1. An all-out joint Federal-State-local effort is urgently needed to restore the derelict landscape, with the Federal Government providing the incentive and leadership. The Federal and State governments should participate by acquisition of certain despoiled lands for public use; and by grants, loans, and cost sharing with the private sector and local subdivisions of government where the public interest will be served.

2. A Federal Commission is needed to establish standards and criteria—including economic values—for the enhancement and protection of the beauty and attractiveness of the United States. The Commission should carry out national policy needed to effect both rehabilitation and preservation of the landscape, including rivers. The Commission should promote coordination of planning and action among all levels of government.

3. The study being made under the Appalachian Regional Development Act of 1965, Public Law 89-4, on surface mining should be carried forward at greater speed and with sufficient on-site study of conditions and with a study in depth by professional people to develop a meaningful action program.

4. The Federal Government must take the initiative now on government-owned lands to establish standards of land maintenance and rehabilitation while it leads others into taking similar action. The planning for this rehabilitation must involve the competence and skills of all appropriate disciplines so that the total environment of the region is recognized.

5. Public investment in restoration efforts should be protected by appropriate statutes.

6. State or regional compacts pertaining to surface mining, water pollution, terrain damage, and land rehabilitation should be encouraged.

Because 50 Californians attending this conference are thrilled by the leadership of the President of the United States, and by the momentum that this conference has developed, we have sent the following telegram to the Governor of California, Edmund G. Brown:

"President's Conference on Natural Beauty successful. Recommend you take leadership for similar State conference earliest opportunity. Will undertake funding on modest basis."

This is signed by 50 Californians, headed by State Senator Fred Farr and Assemblyman Edwin L. z'Berg. We would like to recommend that other delegates ask that a similar conference on natural beauty be planned for their State.

The Underground Installation of Utilities

The Chairman, Mr. CISLER. We are deeply impressed with the progress being made in underground installation of electric utilities, especially low-voltage distribution and service facilities. High-voltage transmission lines are far more difficult to install underground. However, substantial research and development work is being undertaken on an industrywide basis. There is an increasing awareness of the influencing factors involved in improving aesthetic values.

There is need for a clear understanding of the important distinction to be made between low-voltage distribution and service facilities and high-voltage transmission facilities. Each must be considered separately and distinctly as to technology, cost, construction, operation, and general relationship to the entire complex of an electric power system of generation, transmission, and distribution—from source to consumption. Each must serve a separate and coordinated function in order to provide economic and continuous supply.

Our recommendations are, briefly, as follows:

1. It is evident that much progress is being made in developing and installing underground facilities to serve new residential projects, in particular, those most favorable to effecting cost reduction. Presently the cost ratio in installation expense has been reduced to 1.5 for underground to 1 for overhead construction as compared to 10

to 1 less than 10 years ago. Utilities are urged to accelerate and strengthen their endeavors in this direction.

2. Wherever possible, consideration should be given to changing the overhead to underground construction. Endeavors should be continued and intensified to improve the appearance of overhead-type construction both for new construction and for the rehabilitation of existing construction.

3. Because other utility services are involved, such as communication, gas, water, and sewer, encouragement should be given to the joint use of rights-of-way, either existing (such as transportation) or entirely new ones. The panel recommends that utilities explore the possibilities of greater coordination of the joint use of rights-of-way and common trench for such service.

4. It is extremely important that the general public and interested groups in particular have more information on the reasons why overhead high-voltage transmission lines are different from high-voltage underground transmission lines. There is no simple resolution of the subject. Cost ratio alone is of the magnitude of 20 or more for underground as compared to 1 of overhead. The panel recommends that the entire electric power industry intensify its public information program on the subject.

5. Moreover, improvements have been and should be further undertaken to improve overhead transmission line design, construction, and routing to achieve general aesthetic acceptance. There must be recognition also that in certain areas aesthetics may call for underground construction to the extent possible instead of overhead construction.

6. An extensive program of research and development in the electric power industry has already been undertaken in both overhead and underground transmission. Even though much is being done, the panel recommends a still greater endeavor in the field of research and development to the end that systems and equipment be developed for the efficient and economic transmission of electric energy at high voltages underground over long distances and thus attain greater aesthetic acceptance.

7. Public authorities—Federal, State, and local—are importantly concerned with these matters of underground and overhead facilities. The panel recommends that all of the influencing factors must be objectively and thoughtfully considered by cognizant authorities in determining what is best and appropriate in achieving aesthetic goals.

8. Long-range planning for economic growth and development of the Nation in general and specific areas in particular must enter into the subjects which the panel has discussed. The increase in population and the nature of our complex national goals and purposes require electric utility systems and all others concerned to address themselves to what we must be prepared to do one, two, or more generations beyond. The panel recommends that the electrical industry include aesthetic considerations in its long-range planning for the preservation of natural beauty.

Finally, the panel wishes to bring before the conference the significance of energy and power to our Nation. As a people, we produce and utilize tremendous amounts of energy in one form or another. One manifestation of this is electric energy, an upgraded form of energy. Electric power exists in this country to a remarkable degree and contributes greatly to our national strength. The transmission lines interconnecting sources of production and areas of utilization are channels of energy movement and sinews of might. These are a part of our Nation's capacity to achieve higher standards of living for more and more people. They merit our most thoughtful understanding and action.

Automobile Junkyards

The Chairman, Mr. HAAR. Our panel on the automobile junkyard was composed predominantly, as it should have been, of industry representatives. There were naturally differences of opinion among the panel members. At times the scenario read like, "Who Killed Cock Robin. . . . Not I, said the Sparrow."

However, as a result of the discussions and exchange of views (which is of course the primary purpose of a conference of this type) a remarkable agreement emerged. We agreed on the existence of a problem.

There are junkyards and abandoned cars in the streets and along the countryside that are making America ugly, not beautiful. We also pointed to the fact that the scrappage of cars is at a record high today, running 5 to 5½ million cars a year. This figure is projected to 6½ million cars by 1970, adding potentially significant numbers to our inventory of 13 to 15 million. Therefore—and this, you will agree, is a more significant agreement—the future promises an ac-

celeration of blight if industry and government do not act together to solve this problem.

We also concluded that the principal solution to the junk car problem is not to haul the cars into the woods, nor to screen the graveyards, nor to bury the car hulks, nor to cast them into the ocean, nor to use them as fill, nor to experiment with them in an analogy to Public Law 480, for a Cars for Peace program—although in terms of certain market sectors and at certain times all of these techniques could be used to good effect.

We think that the primary emphasis should be on the recycling process of making auto scrap attractive enough from a quality and price standpoint through operation of the market forces, with whatever government lubrication might be necessary to effectuate this end.

More specifically, the problem requires Federal, State, local, and industrial cooperation. We therefore considered what could be done at the different levels of power.

Now, on the State level, it seems appropriate to move for model State legislation providing for automatic and rapid transfer of title to facilitate the movement of abandoned cars into the scrap cycle. If adequate constitutional notice could be given—which does not seem to pose too bleak a barrier—a statute vesting title more quickly would be legal and effective.

There also are recommendations for State and local land planning and zoning for wrecking yards so that they can be located in their proper place, not impinge on their neighbors and, in turn, perform a useful economic function without being impinged upon by other uses.

We also recommend State licensing for wrecking yards. A personal property tax, based on their fair market value, seems in order to expedite the moving of automobile hulks, particularly from the rural areas.

Our next step up the escalator of power and of money takes us to the grants-in-aid program. Here we suggest matching funds for concentration and storage of processed hulks, for help in screening and planning, and for aid to municipal pickup and disposal, as part of the solid waste disposal program now going on within the Federal-State-local relationship and as proposed in several bills before the Congress.

On the Federal level, further action is prescribed. First, we recommend that both the interstate highway system and the non-

interstate ABC system be so regulated as to bar the presence of auto junkyards.

We think, too, that there are other special points of Federal interest in which the disbursement of public funds justifies exclusionary regulation. Washington, D.C. is one of these as part of its comprehensive program for beautification and, again, so are the approaches to national parks and national monuments. At such points drastic action is called for, including the payment of sums under eminent domain.

Federal grants should also be made available to civic groups and industry associations for the purpose of a cleanup campaign and a tree-planting campaign with specific reference to those plantings necessary for wrecker yards.

We think, too, that in view of the payoff that thus far has been attained, an expanded program of combined government-industry research should be undertaken. Technology can provide many of the answers to the problems it raises.

We recommend, also, that the Interstate Commerce Commission examine into the rate structure to determine whether there is discrimination against the shipping of scrap as opposed to iron ore, which is its chief competitor in the steel mills.

Turning to the recycling process and with emphasis on industry's own efforts to accomplish the task of eliminating the unsightly junkyards and the abandoned cars in the streets, we recommend that private industry should be given added impetus through tax credits and other incentives to invest in new equipment and technology such as the shredders, flatteners, and the like, which are making this scrap more consumable by the steel mills. Our calculations indicate that only a small subsidy is required by way of a variable disposal fee per ton on car scrap. Specifically, as an initial phase, we recommend that the Small Business Administration should authorize and set aside a special fund allowance of \$25 million for companies unable to finance this purchase through their normal sources of funds.

Finally, there is the incidence of the cost of the program on the different components of the automobile industry, from production to dismantling to its final obsolescence. It was generally thought—although this depends upon which member of which industry was talking—that the junkyard was a problem that should be related directly to the automobile and to the automobile user. This is part of the price of an automobile society. It seems appropriate that these

programs that we are recommending at the State and Federal level should be financed by a tax on the automobile user and manufacturer.

In summation, we think that this combined program of Federal technical and financial leadership, State-local planning grants, and private investor effort and research will serve the public interest by eliminating the automobile junkyard problem so singled out as a symbol of their efforts to enhance the quality of the environment by both the President and Mrs. Johnson.

The New Suburbia

The Chairman, Mr. BEMISS. Next to national defense, the challenge of making habitable, durable, and productive the areas in which will soon live three-fourths of our population is the most urgent piece of public business. It involves both normal metropolitan sprawl and the building of new communities.

The suburbia of postwar years is maturing into the metropolitan area. It is no longer a pastoral escape from city problems and concerns, but a deeply interdependent, specialized part of the metropolitan complex. For most of the United States the metropolitan complex (which is part of the larger megalopolitan complex) is a new condition, creating dynamic problems and opportunities which must be dealt with positively.

The new metropolitan condition is one with which political subdivisions designed in premetropolitan days cannot cope. There is a conflict—a stalemate—between the actual and complete economic, natural resource, and social interdependence of the components versus illusions of sovereign independence, or put in another way, a conflict between short-run local interest and long-run metropolitan interest. The interdependence of people and of resources is not realized, and without this realization the metropolitan area is without a policy and without a program and, therefore, totally unable to move ahead.

The stalemate must be resolved. The region, the State, the Nation cannot afford this stalemate while urban sprawl creates a disorderly, impractical, and unattractive mess to oppress our children.

Nowhere is the cost of this stalemate more vivid than in the general failure to acquire open spaces ahead of metropolitan expansion. These spaces which would give the metropolitan area a unity, a dignity, and a habitability, are chopped up and destroyed. Follow-

ing are recommendations toward directing the quantitative growth of the new suburbia toward qualitative results.

1. A statement of national policy that the conservation of the natural resources and amenities of the urban environment is a matter of national concern; and that it is the policy of this Nation that the urban environment should be habitable, productive, and durable.

2. Encouragement of metropolitan regional planning as a necessary basis of economic, human, and environmental development. Localities need more and better information on Federal programs. Federal grants and loans might be withheld from localities until it is established that their request is based on a comprehensive metropolitan plan.

3. Federal agencies should facilitate the fullest and most effective application of existing programs to encourage private entrepreneurial development of new communities meeting acceptable standards.

4. There is a broad need for education in metropolitan area geography and economics so that the metropolitan population understands the dynamics, the potential, and the natural resources of its environment.

5. There is a need for State and regional policy on protection and wide use of natural resources and amenities as the basis of the shaping and developing of the new suburbia. States should be encouraged in the development of comprehensive natural resource and environmental quality planning.

6. Design of the suburbia should be varied and contain a full range of communal facilities and a wide range of housing types and densities to satisfy the varied social, economic, and human needs.

Federal programs which might assist in implementing some of these recommendations:

1. Mortgage insurance for private land development consistent with planning requirements.

2. Loans to State and local development agencies.

3. Grants to local governments for basic water and sewer facilities, and for advance acquisition of land for sewer facilities.

4. Strengthening of both major Federal programs of assistance for open space acquisition and protection in urban areas, and appropriations for demonstration grants to stimulate innovations in techniques other than for simple acquisition.

5. Enactment of legislation to encourage comprehensive regional planning with provision to withdraw Federal aid where such planning is not in process.

6. Establishment of interagency task forces at field and headquarters levels to increase flow of information on Federal aid programs to new suburbia, and to expedite processing of applications for assistance.

7. Study of housing and building codes, zoning, tax policies, and development standards.

Landscape Action Program

The Chairman, Mr. WHYTE. For the landscape, some of the most exciting opportunities for public action are ways to stimulate private action. And a tremendous base for action has already been laid. We think there are new programs to be set up, but one of the biggest challenges is to harness the programs that are already underway.

We suggest a task force to review the statutes to see where they might be broadened to incorporate natural beauty. A policy directive on natural beauty, for example, is especially needed by the Bureau of Outdoor Recreation for the administration of the Land and Water Conservation Fund. Natural beauty should be cranked into the recreation plans of the States to qualify for the grants under this program.

Many agricultural programs have a great potential. The land retirement and cropland adjustment program, for example, could do much for recreation and the look of our landscape—even if only a small portion of the funds are used for that purpose.

Another example is the Clarke-McNary program for tree planting. At present, the statutes specifically prohibit planting for aesthetic reasons. With a little adaptation, this program could be a wonderfully stimulating device to get States to furnish nursery stock for private landowners that would cooperate in an area landscape program. Quite literally, this would be seed money.

But how do we get these local landscape plans going?

There is a big vacuum in our planning apparatus. There is a host of city, regional, and State planning and recreation commissions, and some are exceptional. As far as the landscape is concerned, however, most of these groups suffer an operational defect. They don't look at it.

There are plenty of maps and studies, of course, and they are necessary. But the view is vicarious. It is bird's-eye—the view of the aerial mosaic—and it is once or twice removed from reality.

The ultimate reality is what we see at ground level as we walk or drive. It is effect we are dealing with—to a degree, illusion—and the perception of this is missed when our planning apparatus is used.

How do we stimulate communities to look at themselves? Many of us were very heartened by the provision in the new housing bill for grants to cities for tree planting and townscape action.

This should be great for the cities. But why not a similar program for the countryside?

Landscape grants could have terrific leverage. Our countrysides are full of opportunities to be seized—the brook by the side of the road, for example, that you don't see because of the second growth. Cost-sharing grants for such things as plantings and scenic clearings can stimulate communities to take a fresh new look at themselves, and to build this process into their basic planning machinery. But a big job of technical assistance needs to be done.

There are many tools and programs ready to be used, but in coordinating them we have something of an inverted pyramid. The burden of seeking out and tying together all of the many Federal and State assistance programs falls most heavily on the groups least equipped for the job—the local governments. They need help.

One way might be to set up interagency task forces which in a series of demonstration projects could go to particular areas and show how all these many programs can be dovetailed together.

At the very least, there needs to be a much more vigorous clearing-house operation. Over these past two days we have heard of a lot of exciting precedents, new procedures that work. But how many local officials and groups are aware of these? Getting this hard nuts-and-bolts information across is one of the most evangelical things we can do.

Education

The CHAIRMAN, Mr. BRANDWEIN. Education is a verb masquerading as a noun. To become educated we act; we participate; we change. When we educate we conserve men, women, children, as well as environments. To conserve beauty of any kind, in any form, children, men, and women must experience it; be educated in an environment of beauty; have easy and perennial access to it; learn in it; that is, live in it.

When we educate we ask in effect: How shall we live, and to what end? We seek not only purpose, we seek experience in search

of meaning. Beauty can be experienced and we are persuaded that its appreciation and conservation can be taught and can be learned.

The way children live and the way they learn, at home, church, school, through TV, books, newspapers, magazines, will influence how they will live and what they will do. Put in other words, what is not in the mind cannot be in attitudes, values and acts; that is, in behavior. It is too much to expect of children who do not have a healing, that is, a sanative environment full of natural beauty, in early youth, to guarantee an environment of natural beauty for others; in children, after all, are the true origins of public policy and practice. Amongst these children are our future leaders in all walks of life, men and women who will live for ideas, as well as those who will live off them, that is, apply them to practice.

In a correlative way, one may ask whether a society which does not develop a sanative environment for all children can require of all children, in whatever area they commit themselves, compassion and competence, in return for squalor. Clearly, early education as well as adult education in all manner and form is central to securing and maintaining natural beauty in the environments of people, their homes, their buildings, their natural areas, their parks. Natural areas, play areas, and parks are often the only guarantees of the precious but harmless lawlessness that children require for development, but that is now often denied them.

The curriculum of the school is, after all, all the community does through the school to safeguard not only the child's future in the world but, just as importantly, the environment in which future children will grow. Beauty must be implicit and explicit in the architecture flowing from man and the architecture flowing from nature. The community provides schools with classrooms, libraries, laboratories, and gymnasiums; the community must also provide cities built with an eye for beauty as well as natural areas with their natural beauty—and so, too, with its churches, synagogues, museums, theaters, galleries, all its buildings and playgrounds.

Just as an ever smaller world needs larger minds to encompass it, so a world in which areas of natural beauty are shrinking needs a greater sensitivity and a larger purpose to conserve and enhance it in natural beauty so that it is fit for all living things and for all who will live. We cannot make low compromises with destinies of children.

Your Panel on Education recommends concrete action under these five general functions:

- A. Deliberation and Review.
- B. Instruction and Demonstration: Professional and Semi-Professional Groups.
- C. Instruction and Demonstration: Lay Groups.
- D. Requirements of The Newer Specialization.
- E. Investigation and Research.

A. With regard to the general functions subsumed under Deliberation and Review, we recommend:

(1) The establishment of The President's Council on Natural Beauty as a focus for activities of the Federal Government in conservation, redevelopment, and maintenance of natural beauty. This Council should sit permanently, should have representation from professional and lay groups (including education), should review practices in conservation redevelopment and the maintenance of natural beauty as well as in conservation education, and should make recommendations to the President.

The President's Council might, if it considers such action appropriate, stimulate the organization in the various States of Governor's Councils on Natural Beauty or the appointment of an official who coordinates such activity. There is no desire to displace Councils now in existence having a similar purview or responsibility.

(2) The establishment of panels under the President's Council on Natural Beauty to hold under constant review practices in the various areas of conservation, redevelopment, and maintenance of natural beauty (as well as conservation education), and to make recommendations to the Council, especially with the view of avoiding duplication of effort by government and lay groups.

B. With regard to the general functions subsumed under Instruction and Demonstration: Professional and Semi-Professional Groups, we recommend:

(1) The establishment of a Study Committee on Conservation, Redevelopment, and Natural Beauty composed of leading scholars and educators in the field. The purpose of this Committee should be to survey elementary, secondary and collegiate and post-graduate curriculums and make recommendations where necessary to the Of-

fice of Education, The National Science Foundation, the National Foundation for the Arts and Humanities (when established), and National Institutes of Health for innovation in curricular areas. The Study Committee might also recommend the development of special studies and investigations in the various areas of the curriculums.

Perhaps the appointment of this Committee might be initiated through activity of the President's Council on Natural Beauty, U.S. Office of Education, by a foundation, or other interested groups.

(2) The establishment of an interdepartmental Board of Review on Conservation, Redevelopment and Natural Beauty to be appointed for the purpose of coordinating publication activities of departments of government concerned with conservation, redevelopment and natural beauty.

The various departments of government, e.g., Agriculture, Interior, and their divisions, have been producing a great variety of exceedingly useful books, pamphlets, films, and filmstrips. There is an important need to coordinate these educational and publication activities to increase effectiveness and eliminate duplication.

(3) The need for coordinating State and local activities.

Many States and cities and private organizations have produced, and will continue to produce, excellent educational materials. There is an important need—

(a) To establish a definitive bibliography of such materials. (b) To develop "model" libraries of such materials, and (c) To stimulate development of university and school centers with such libraries.

It is recommended that an appropriate agency or university undertake a study of the feasibility of this coordination, possibly under Public Law 531, the cooperative research program, or under title II, Elementary and Secondary Education Act of 1965, sections 201, 202.

(4) Incentive grants, or demonstration grants, should be made available (through appropriate agencies such as the Office of Education, National Institutes of Health, and the National Science Foundation, among others) to universities and institutions, acting in collaboration with local school systems, to encourage the development of school construction plans with adjoining natural areas, or with appropriate "natural" landscaping useful for study of natural environments (sometimes called outdoor education). The schools themselves need to be examples of beauty. This might be done under title III, sections 301, 303, Elementary and Secondary Education Act of 1965.

Schools also need natural areas adjoining them (or in ready access) for study by children and for the significant, although subtle, "teaching" and "learning" afforded by such areas. Such natural areas, however, should be developed to minister to what seems often to be the disorderly activity of children, but which nevertheless fulfills their creative needs.

C. With regard to the general functions subsumed under Instruction and Demonstration: Lay Groups, we specifically recommend:

(1) Presently many exceedingly important groups exist with wide interest and wide activity in conservation, redevelopment, and maintenance of natural beauty. For example, such groups as the Audubon Society, National Wildlife Federation, park and recreation organizations, chambers of commerce, garden clubs, organizations of women voters, Young Men's and Young Women's Christian and Hebrew associations, parent-teacher groups, labor organizations, farmers groups, and citizens groups of all manner and form.

We recommend the establishment of a commission or task force on establishment of community models in conservation, redevelopment, and natural beauty, drawn from these groups.

We refer particularly to the development of "pedagogical models" of home, garden, and local areas designed to demonstrate local environments of natural beauty—particularly for their educational import. We seek particularly to develop collaborative efforts.

Such coordination and collaboration might be stimulated under title IV, section 401, of the Elementary and Secondary Education Act of 1965.

(2) The establishment of a commission or task force concerned with public communications on methods of conservation and maintenance of natural beauty.

Television, radio, newspapers, magazines, and others with the support of the Advertising Council should develop coordinated educational programs (in addition to those existing) designed to disseminate methods concerned with the maintenance of natural beauty.

Authorization might be similar to that under section IV of the Federal Water Pollution Control Act. Authorization for this function might also be developed under title VII of the National Defense Education Act.

(3) Establishment of a commission or task force of services in maintenance of natural beauty.

A task force representing organizations such as the Job Corps, Boy Scouts, Girl Scouts, and Boys' Clubs, should develop coordinated programs to serve local agencies in maintaining natural and park areas in beauty.

Title III of the Elementary and Secondary Education Act of 1965 has application to this proposal.

D. With regard to the general functions subsumed under Requirements of the Newer Specialization, we recommend:

(1) The establishment of summer institutes in conservation, redevelopment, and natural beauty undertaken through the collaborative effort of scholars and educators, designed to facilitate the training of teachers in elementary and secondary schools in environmental science, economics and related areas, particularly as they relate to management of natural areas.

We have particular concern that the work include a study of alternatives in modes of action of business, planning, and citizen's groups as they reflect sometimes conflicting social and economic principles and practices.

(2) The establishment of centers for conservation redevelopment and natural beauty in every major urban area, with the purpose of assisting in developing programs in conservation and natural beauty in the schools and community centers. The program of the Job Corps may furnish one nucleus for the establishment of these centers.

(3) The establishment of an organization of traveling teachers and lectureships to disseminate methods and devices towards increasing the competence of teachers in the requirements of the newer specialization concerned with teaching of conservation, redevelopment and natural beauty.

Such programs (already developed in science through the agency of the National Science Foundation) might be developed through the agency of a National Foundation for the Arts and the Humanities.

(4) The encouragement of the establishment of conference and training and/or nature centers, in affiliation with universities, where teachers and lay groups may discuss and plan programs for

the dissemination of information concerning conservation and natural beauty.

Title IV of the National Defense Education Act may apply to this proposal, as might also the Vocational Education Act of 1963.

E. With regard to the general functions subsumed under Investigation and Research, we specifically recommend:

(1) The wide establishment of Community Extension Programs within the various States and regions of the country so that the resources of the universities may be focused on the community as they have long been concerned with rural areas (reference is to Title I—University Extension and Continuing Education, S. 600, Higher Education Act of 1965).

Organizations such as the National University Extension Association might be involved in this function.

(2) Emphasis on the applicability of the National Defense Student Loan Program, Title II, NDEA, to students in fields required for implementation of programs on conservation and natural beauty, e.g., architecture, urban planning, conservation, horticulture, wildlife studies, and the like.

The Graduate Fellowship Program, Title IV, NDEA, also applies to this recommendation.

(3) The encouragement by the President's Council on Natural Beauty of the development by interested universities of centers of graduate training for conservation, redevelopment, and maintenance of natural beauty, and that incentive grants and private funds be sought for this purpose.

(4) Establishment of a panel of research in natural beauty whose purpose would be to encourage and implement study and research programs in problems relating to natural beauty.

(5) The development of a major poll of public opinion in conservation, redevelopment, and maintenance of natural beauty with the purpose of reporting on conflicting principles and practices as well as areas of agreement. These polls might be developed at suitable periods to reflect change in opinion and, if possible, practice.

Citizen Action

The Chairman, Mrs. WHITEMORE. The Citizen Action Panel finds that this generation of Americans is ready, as no earlier gen-

eration has been, to take an active part in restoring and saving the beauty of our country. This conference shows the strength of present citizen programs. Millions of people will join us if we define the needs and give them the tools.

The enthusiasm and competence gathered in this room must become a continuing, coordinated force in the service of citizens, professionals, and public servants who strive for a beautiful America. Toward that end, we suggest:

1. Immediate formation of a National Citizens Committee for a Beautiful America, privately financed, to stimulate and coordinate citizen efforts. State or regional affiliates may be desirable.

2. That regional natural beauty conferences be held in the coming 12 months to bring the insights of this conference to bear upon specific regional and local needs and to shed light upon programs which should be shared in all parts of the country. Sponsorship should involve the White House, State governors, regional organizations, and the proposed National Citizens Committee for a Beautiful America.

3. That national women's organizations form a joint action committee to use the findings of this conference in helping our First Lady carry out the beautification program which her inspiring leadership has initiated.

4. That the President call business and labor leaders together to enlist their vigorous participation in fulfilling conference proposals which only they can implement.

5. That a citizen body be appointed to advise the Recreation Advisory Council, or any broader council which may incorporate the functions of the RAC, representing the breadth of citizen interest exhibited here.

6. That, following the President's leadership, each governor be encouraged to appoint a permanent citizen advisory council to provide a focal point for citizen action in each State and to make natural beauty an effective partner in all State programs.

7. That beautification projects be undertaken, particularly in blighted areas, in order to develop the spirit and the leadership which are vital to alleviating racial tension, poverty, and the tragedies of dejected youth.

8. That natural beauty be further emphasized as a focal point of rural area development, of poverty programs, and of urban renewal.

In order to motivate and equip citizens and organizations not now directly involved in beautification we suggest:

9. That groups sponsoring natural beauty programs provide public recognition and awards for outstanding beautification accomplishments by government agencies, businesses, citizen groups, and individuals.

10. That recruitment and training of volunteers for community improvement be expanded.

11. That business and industry provide leadership in pressing for and recognizing opportunities for beauty in commercial and industrial architecture, landscaping, waste disposal, etc.

We feel that there are expanding opportunities for citizen action and suggest:

12. That care be taken to involve all civic and related groups of a community or region when beautification projects are planned and executed.

13. That the Federal and State governments and private organizations provide grants for demonstration projects by citizen groups, for university extension services, particularly in urban areas, and for research.

14. That professional and governmental specialists fully accept the appropriate role of citizens in setting goals and shaping programs.

Our panel also wants to see professional competence applied to all community projects, and we suggest:

15. That community advisory councils of professionals in architecture, scenic design, engineering, conservation, and other fields be established to bring technical skills into beautification projects.

I recommend that serious consideration be given to these proposals which were submitted from the floor during our panel session:

1. That the President and the national follow-up committee call on the major TV networks to prepare and show a hard-hitting, prime-time documentary on the ugliness in America and call on utility companies and schools to help us reach every home with a personal message from the President and First Lady, asking citizen help in a crusade for a beautiful America.

2. That the U.S. Weather Bureau be directed to report smoke as "smoke," rather than "haze," as a means of building the public concern which will lead to citizen action against air pollution.

3. That citizen groups concerned with natural beauty in each State form an active lobbying organization akin to California's new Planning and Conservation League for Legislative Action.

4. That the President urge every political subdivision of government to appoint a Citizens Committee on Beautification.

5. That all appropriate agencies and groups cooperate to the fullest extent in making the Potomac River Basin a model of conservation and natural beauty for the entire country.

The President and Mrs. Johnson have inspired us. We are confident that future generations will be grateful to them for their leadership in creating a more beautiful America.

Mr. ROCKEFELLER. We have now had the brief summary reports of our panel chairmen, and I am sure you realize more than ever why we can be so proud and grateful to them individually and collectively.

As we go to present this report to the President, let me add a few concluding observations.

We have not sought easy agreement. The people who have come together at the Conference to discuss these opportunities cover a wide range of viewpoints. In addition to conservationists, there are businessmen, labor leaders, highway engineers, architects, planners, political leads, and citizens. In some respects the conference has been a series of confrontations, and we think they were productive.

But we realize there is a limitation to what a conference can do. We have not found answers to all the problems. On some topics there are practical recommendations for immediate action; on others, conflicting proposals and ideas that call for much more testing and thought.

But we have a momentum. The thousand participants can return home with new ideas for action and a renewed vigor for getting on with the job. We heard today that several States will be moving to set up similar conferences of their own, and others should soon be joining them.

A conference can only be a step—but it can lead to many more. We hope our efforts will help the President and our countrymen in building a better and more beautiful America for our children and their children after them.

CHAPTER 21

RESPONSE OF THE PRESIDENT

The White House, May 25, 1965

Following the reports of the panel chairmen, the delegates assembled in the East Room of the White House. A brief summary of the panel reports was given to the President by Mr. Rockefeller, Senator Fred S. Farr, Edmund Bacon, William H. Whyte, and Mrs. Arthur Whittemore.

MR. ROCKEFELLER. Mr. President, Mrs. Johnson, members of the Cabinet, distinguished members of Congress, delegates of The White House Conference on Natural Beauty.

We are most honored to have this opportunity to report to you. We believe it may be unique for a President to ask so large a group to report personally to him in the White House.

At your direction, for two days we have been meeting to develop new ideas and new directions in making this country a better and more beautiful place to live. The reports you have just heard are, of course, only the highlights. There were many exciting and productive ideas, and we believe that the great enthusiasm the conference has generated will have many consequences.

Again, let me express the appreciation of this conference for your leadership and your interest and for your hospitality today.

Ladies and gentlemen, the President of the United States.

THE PRESIDENT. Today I worked and thought about problems in Vietnam and the Dominican Republic.

I had to consider decisions which might affect the security of this country, the lives of Americans, and the destiny of other nations. Yet this may be the most important thing that I have done and am doing today, and I am confident this is the most important group that I will see. For this is part of what all the rest is for.

We have increased the wealth of our Nation and the prosperity of our people. Yet we do not do this simply to swell our bank deposits,

or to raise our gross national product. The purpose of this Nation cannot be listed in the ledgers of accountants. It is to enrich the quality of people's lives—to produce the great men and women which are the measure of a Great Society.

And that is what you have been here trying to do.

We have also built the most powerful defense in the world, and the power is now on guard in the Caribbean and in Southeast Asia, and in a dozen other quieter places. But we did not forge this shield for freedom simply to be safe and secure, or free from risk or sacrifice. We built it to liberate our energies for a society where each person could use all of his full powers—a civilization for the flowering of man. And this, too, is what you are trying to do.

Crisis and conflict command the headlines. But it is your work that will shape the future.

For natural beauty is not a luxury for the satisfied. It is not a pleasant frill or a superficial enjoyment. Natural beauty, as you and I conceive it, is the world that we live in. It is the environment in which we were born, and grow to maturity, and live our lives.

It is more than a rich source of pleasure and recreation. It shapes our values. It molds our attitudes. It feeds our spirit, and it helps to make us the kind of men and women that we finally become. And the kind of men that we finally become in turn makes this great Nation.

The importance of natural beauty cannot be easily measured. It cannot be coded for computers or calculated by economists. But it is proven beyond doubt by the history of the race, and the experience of our own lives.

The force of natural beauty—its meaning to the life of man—infuses art and culture throughout the Western civilization. Each generation from the beginning has drawn from it strength and meaning, and even truth, and nowhere has it played a greater role than here in our beloved America.

At first there seemed no end to the limitless wonder of the land. And then, the country grew. There came a time of greed and ignorance and ruthless exploitation.

Farsighted leaders, from Theodore Roosevelt to John Kennedy, acted to halt decay and tried to preserve our natural splendor.

Last year, I signed more than 30 important conservation bills into public laws—the greatest record of conservation since the Republic was born. But this accomplishment was only the beginning. This

year I have sent to the Congress new bills, bills to protect our great wild rivers, bills to create new parks, bills to provide funds for areas of recreation and pleasure throughout our metropolitan areas. I predict here this afternoon, that 1965 will set new records in conservation in America.

Now, these are important measures for our people, but most of them are expansions of the classic role of conservation.

Today, natural beauty has new enemies, and we need new weapons to fight those enemies. They are the products of the modern world. In many ways they are the dark side of the bright achievements which have helped us to grow and to prosper and to improve our welfare.

The technology which has given us everything from the computer to the teleprompter has created a hundred sources of blight. Poisons and chemicals pollute our air and our water. Automobiles litter our countryside. These and other waste products of progress are among the deadliest enemies that natural beauty has ever known.

Urbanization is another modern threat. More and more our people crowd into the cities, cutting themselves off from nature. Cities themselves then grow and spread, often devastating the countryside. And in every corner of the land the Nation builds, and builds, and builds—highways and restaurants, factories and neon signs. And far too often we find the marvels of progress, only to find that we have diminished the life of man.

This is not the consequence of the deliberate depredations of a few. Rather it is the result of the uncontrolled growth in building, uninformed by the need to protect nature, unchecked by the citizens whose world is being blighted.

This is why I have called for a new conservation: to restore as well as to protect—to bring beauty to the cities as well as to keep it in the countryside—to handle the waste products of technology as well as the waste of natural resources.

And there is something more too. I believe in, and I fought all my life for, more national parks and rivers and forests and wilderness. But beauty cannot be a remote and just an occasional pleasure. We must bring it into the daily lives of all our people. Children, in the midst of cities, must know it as they grow. Adults, in the midst of work, must find it near. All of us, in the midst of increasing leisure, must draw sustaining strength from its presence.

All this must be true if we are to ever really have a Great Society. And none of it is going to be easy.

The Federal Government will do its part but it will also require a most active concern and a practical program in every State capitol and in every city hall of this country. And in that connection, Mrs. Johnson told me just as we entered the room that three or four governors were already following the example you set here by calling State conferences on natural beauty where citizens will spend 2 days reviewing and evaluating and analyzing the problems at the State level, truly exercising their much boasted right of State's rights. I am going to be disappointed if there is a single person in this room, representing a single State, who returns to that State and doesn't communicate with his governor so that not just 3 or 4 States follow this example, but all 50 of them have conferences on natural beauty.

I think it is going to demand that all of our private citizens be constantly alert to stimulate, to inspire, and to stem new danger to beauty. For it is the quality of our lives that is really at stake.

All of this, at every level, has been begun by this conference. This is not just the first White House Conference on Natural Beauty. It is one of the largest and I think the most impressive conference that we have ever held. Experts, officials, and concerned citizens—in every field—from each of the States have come to Washington to try to help us make this a better and a more beautiful land.

I know, for many of you, it was not easy to attend. Most of you are busy people with much to do. But there is nothing that is more important, for you are helping to provide an enriching environment for almost 200 million Americans. You are working to extend the national heritage of beauty to successive generations of Americans. And you are laying one of the great cornerstones for the Great Society.

I have received reports on your progress from my staff. I have heard from many observers, including my wife, that your deliberations have been marked by expert knowledge, by a zeal for our cause, and an awareness of the practical progress. The reports that I just listened to, which I realize cover just a few of the highlights, reflect the impressive nature of your achievement.

I intend to make full use of all of your work, and I hope that local government officials as well as the governors themselves in every State in the Union, will do the same. All America is deeply in the debt of that selfless patriot, Laurance Rockefeller, for the job that he has done.

Someone asked me the other day about how I like to live in the White House, and they told me it was off the record, and I said, well, we do have our problems—that we wake up early in the morning when the planes are coming back from the raids, we go to work and we come to a late lunch and, if we are lucky, we get a little nap after a bowl of soup, and get refreshed for the next part of that day, from 4 to 12; but sometimes I am interrupted in that nap by Lady Bird and Laurance Rockefeller and others in the next room, talking about flowers, roadsides, and so forth. This afternoon, after a particularly hectic day yesterday and after a late lunch, I went in about 4:15 to get my afternoon nap in preparation for a day that will carry me up to midnight, and I dozed off to sleep immediately after I put my head on the pillow. And sometime or other I awakened and I could hear a little soft music in the background and a lot of conversation and I said, “My! Am I dreaming? Is Laurance Rockefeller back in town again?” And I got up and went out and pulled the curtain and peeped behind it and looked, and there was not only Laurance Rockefeller and Lady Bird and the 60 that started out with them, but a thousand more that joined them.

Now, what are we going to do about all this here in the Federal Government? Well, first, after I review all your reports, I am going to send them to the members of my staff and all the members of the Cabinet. They are going to be instructed to review all of your recommendations for Federal action. As many as feasible are going to be included in my next State of the Union message and my next legislative program to the Congress.

I hope that you won't keep this conference and its achievements and its hopes and its dreams and its plans a secret from those Members of Congress from your State.

In this hour of our national history I am proud to report to you that I doubt that we have ever had groups working more together, with more of them with their shoulder to the wheel. The captains of industry, the managers of business, the holders of stock, the laborers and the workers in the mills and the mines, the women have come out of the kitchen, have gone out among us to lead the more modest ones, the minority groups, all of them. Through their Congress they are working to give us the greatest legislative program that this country has ever written. There is less hate, there is less bigotry, there is less prejudice, there is less jealousy, there is less partisanship in your Congress among your Members of the House and

Senate than any time that I know of in the 35 years that I have been here.

So for natural beauty, our next State of the Union message to the Congress will contain our recommendations that require legislation. I will immediately give careful consideration to any that require immediate Executive action and that can be taken without legislation.

Second, all recommendations for State and local action will be sent to the governors of the States, and the mayors and the town officials across the country. Wherever further information is needed I will send a personal representative to explain your proposals as well as the Federal program.

In addition, I intend to call for a series of regional and local conferences to discuss specific ways to insure natural beauty in each section of this country, and the members of the Cabinet and the authorities in this field will be available for these conferences. I have already said to the members of the Cabinet that this is required reading.

Third, all the recommendations that call for citizen action and public education will go to the local governments and the private groups in every State. In the Federal Government itself, I will set up a special unit for citizen education—to help inform people how they can best combat blight and decay in their own neighborhoods. I hope that every governor in every State will do the same.

In this way I think we can keep the fruits of this enormous effort for which Mr. Rockefeller has provided the leadership from being dissipated. We can truly translate your work into action and action into pleasure and sustenance for every American.

I know you will be glad to hear that we have not even waited for the end of this conference to take important action, based in part on your discussions in several fields.

At two Cabinet meetings I have asked each Secretary to give high priority to making sure all our programs advance the natural beauty of America. I have asked for a progress report this month. I can inform you that in response to this request your Government has taken hundreds of important steps already—large and small—to increase natural beauty. We still have a long way to go, but I am determined that this Government in all of its activities shall be a model and a pacesetter for the entire Nation. Every public building that is built will be built under a natural beauty microscope.

In addition, tomorrow I will send to the Congress four new bills to help make our Nation's highways sources of pleasure and sources of recreation. Two of these bills will require the use of some of our highway funds for landscaping, beautification, scenic roads, and recreation along our road system.

This is not a use of highway funds for an alien purpose. It is a recognition that a highway is more than a ribbon of concrete. It is a way for people to travel, and it should serve all their human needs.

Its purpose is not just to get people from one place to another. Its purpose is to enrich the journey. I hope, if you have an opportunity, that you will tell your Congressman and Senators of your interests.

The other two bills that we are sending will eliminate outdoor advertising signs and junkyards from the sight of the interstate and primary highway system except in those areas of commercial and industrial use. Advertising has a vital place in our economy, and junkyards are a product of the inability of technology in the 20th century to dispose of old cars. But these old cars must not be allowed to scar the traveler's view of nature.

I thought that you would be glad to know that we have not been idle while you had been working.

I wish you could all know how wonderful it makes me feel to be able to come here and spend a few moments with you. Even the elements made their contribution to the natural beauty of the White House lawn and the trees and the flowers this afternoon.

So much of a President's time is devoted to protecting the Nation, and to putting down danger and to preventing destruction. These are necessary things, and your President must do them for you.

Yet, my real ambition is to help our people build, and that is really what you have been doing these days. You don't know how it lifts my heart to be able to join you here this afternoon and to feel that I am sharing in your task.

I remember when I was a very young man, a boy that walked through the sand—hot sand—up to see my grandfather—a child of 5 or 6. I would cross the dusty field and walk along the banks of the river. My granddaddy would ask me questions. He would say, how many ponies do you have, and how many chickens do you have, and how many cows are down there at your little place, and tell me about the state of the crops, and when are you going to start picking your cotton? I would stand there with my finger in my

mouth, and if I knew the answers and answered all of his questions correctly, grandpa would take me in and open a black mahogany desk he had and reach in and get an apple. And I would walk satisfied, quite proudly, back along the banks of the river. If I failed, the walk seemed endless—if I hadn't known the answers.

And those hills, and those fields, that river was the only world that I really had in those years. So I did not know how much more beautiful it was than that of many other boys, for I could not imagine anything else from sky to sky. Yet the sight and the feel of that country somehow or other burned itself into my mind.

We were not a wealthy family, but this was my rich inheritance. All my life I have drawn strength, and something more, from those Texas hills. Sometimes, in the highest councils of the Nation, in this house, I sit back and I can almost feel that rough, unyielding, sticky clay soil between my fingers, and it stirs memories that often give me comfort and sometimes gives me a pretty firm purpose.

But not all the boys in America had the privilege to grow up in a wide and open country. We can give them something, and we are going to. We can let each of them feel a little what the first settlers must have felt, unbelieving before the endless majesty of our great land. Thus, they, too, will reach for the wonders of our future, reinforced by the treasured values of our past.

I have one thought here that I overlooked. We have 24 million acres in our National Park Service. I asked a young friend of mine to go out and ask Mr. McNamara how many acres we declared surplus this year from our military establishments. Our military establishments now consume about half of our Federal budget. He tells me that we will make available, from the Office of Defense, 1,200,000 extra acres of land this year.

This is one-twentieth of the acreage we accumulated in national parks since this country was born—one-twentieth of it which will be made available this year in substantial blocks. First priority is the State and local governments, the park services, the park systems, the recreation bodies.

A camp available in the State of California has more than 20,000 acres of land. An Air Force base in one of our southern States has more than 5,500 acres of land. An Air Force base in one of the smallest western States has more than 7,300 acres of land.

I have asked the Secretary of Defense to work very closely with the Secretary of the Interior and the Secretary of Agriculture to be

sure that, before we put this land on the auction block, that the servants and representatives of the people themselves will have a chance to look at it and evaluate it, and see how it can be used in our public system for recreation and natural beauty down through the years.

I want you to remember one thing I say, if you don't remember anything else, that we ought to be very careful to see that every single acre of this land that can be used, that now we have public title to, is turned over to the national system, or the State system, or the local system, or some public system, so that it is maintained for our children, and our children's children.

I want you to get in touch with your Congressmen, and with your governor, and with your mayor, and with the rest of the people, and get that job done for me.

Thank you.

APPENDIX

ORGANIZATION OF THE CONFERENCE

In his message to the Congress on natural beauty of February 8, 1965, President Johnson issued a call for a White House Conference on Natural Beauty and announced that Laurance S. Rockefeller would be its chairman.

Mr. Rockefeller asked two of his associates, Henry L. Diamond and William H. Whyte, to be co-managers of the conference. Whyte started to work on the program planning and Diamond on general organization. Close contact with the White House was maintained through Richard Goodwin of the President's staff.

As soon as a basic working proposal was in hand, Mr. Rockefeller asked the five Cabinet members and the Administrator of the Housing and Home Finance Agency who make up the Recreation Advisory Council to meet with him to go over the plans.

The members of the Council liked the proposal and were ready to go ahead. They offered to make the resources of their departments available and to name an official in each agency to work with the conference and to give that individual enough authority to get things done. They also committed their departments to a share of the cost of the operation. The American Conservation Association was asked to make a grant to help underwrite the cost and agreed to do so.

The basic working proposal emphasized simplicity. The conference would be opened by the chairman and the First Lady and would be concluded by the President. Other than these, there would be no speeches. There would be no banquets and no formal luncheons. The heart of the conference would be a series of panel sessions addressed to specific areas of action.

The chairman and the managers then presented the conference plans to the President on March 15. He reviewed them in some detail and suggested some changes, including a closing session at the White House.

The task of selecting the panelists was begun. There were to be 15 eight-man panels. Each agency submitted a roster of nominees; various citizen groups did the same, and a number of people volunteered their own services as panelists. Eventually, some 800 "must" names were proposed. Striking the final balance required a bit of study—Whyte had to make over 1,000 phone calls—but 120 were eventually chosen.

At the same time a staff man to work with each panel prior to the conference and during the meetings was recruited from the agencies whose programs were most directly concerned with the panel's work. A press man and secretaries for each panel were added.

While the panels were being put together, Diamond was working the organization with the liaison officers named by the Secretaries. They soon added assistants to help out. In addition, George Lamb was obtained from the Bureau of the Budget to coordinate the Federal assistance. Frank Gregg of the Conservation Foundation was persuaded to join up as coordinator of citizen groups. Robert Hutchings of the Public Health Service, HEW, was signed on to head up the publication work including the proceedings to follow. Richard Rogers of Interior was named press officer.

This group of liaison officers and those with special assignments evolved into a working committee with rather regular weekly meetings with Diamond. A graphics committee with Stanley Olsen of Interior and David Granahan of Agriculture was organized, and George Bacca of Agriculture was obtained to be designer of exhibits. State Department facilities were obtained. Hotel and transportation arrangements were made. Again, more by evolution and interest than anything else, a subgroup on arrangements composed of Col. Russell DeGroat of Defense, Richard Pelz of Interior and Byron Kennard of the Public Health Service, HEW, came into being.

The departments and citizen organizations were asked to submit names for invitation to the conference. Attendance was to be limited by the seating capacity of the State Department auditorium—800. An invitation committee, which shall remain nameless, reduced the 3,000 suggestions to about 1,400, and almost 1,000 of these actually showed up. An additional category of observers, composed primarily of Washington people in Government and out, were invited to attend the panel sessions where the seating capacity was greater.

It was emphasized to the panelists that this was to be a "hard" conference. They were not to tarry on philosophical speculation or reaffirmation of the importance of beauty. They were to direct themselves to concrete, specific proposals for action, visionary or immediate. To this end they were asked to boil all their thoughts down to a 5-minute talk and to submit a preliminary two-page summary of what they intended to say.

It was fortunate they did submit the summaries. To the consternation of practically everyone, the bulk of the initial summaries were woefully short on recommendations and very long on philosophy. No matter how fine your people are, it would appear, this is a phase they have to go through before getting to specifics. Fortunately, there was time for this. The conference leadership and the panel chairmen began badgering the panelists unmercifully with telegrams, letters, and phone calls. There was an education for all involved, for the sharpening process called for a lot of homework on current governmental programs and upcoming legislation. The staff men for the panels were especially helpful in rifling pertinent background material.

The sharpening process continued when the panelists met in Washington in closed sessions the Sunday before the conference. There was a constructive tension; the manifest interest of the President for proposals he could use was an admirable discipline, and the panelists responded in kind. And this in turn stimulated a similar response by the participants in the floor discussions.

During the conference itself, the panel chairmen, the conference chairman, and the conference directors met at various odd hours and meals to give continuity and direction to the separate panels. A conference headquarters was maintained in offices supplied by the State Department.

Girls were recruited from the department as pages; additional help was recruited to supplement the registration team headed by Mrs. Blanche Skinner of Interior. Forest and Park Rangers, Boy Scouts, Girl Scouts and 4-H Club members provided security and messenger service and general assistance.

The organization of the conference in some ways reflected one of the major goals of its substance—getting the various Federal agencies to work together. A minor but illustrative example was the task of moving the thousand-odd delegates from the State Department to the White House in 15 minutes. The Army furnished the buses,

and to direct the move, seven different kinds of people with badges had to work together—State Department building police, Park Rangers, Forest Rangers, Washington Metropolitan Police, National Capitol Park Police, White House Police and the Secret Service. Somehow, it all seemed to work without a hitch.

In logistics as well as content, there was an elan to the conference that many found the most encouraging aspect of all. With a strong lead from the Executive, and a strong interest in the common goal, the various government agencies worked together with skill and spirit. If they do as well with the programs the conference proposed, there will be much to be thankful for.

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Allen, George H., Vice President and General Manager of Magazine Publishing, Meredith Publishing Co., Des Moines, Iowa.

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Anderson, Dr. Robert J., Chief, Bureau of State Services, Public Health Service, U.S. Department of Health, Education and Welfare, Washington, D.C.

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- Dargans, Mrs. Louise Maxienne, Chief Clerk, Committee on Educa-
tion and Labor, House of Representatives, Washington, D.C.
- Darling, Dr. Frank Fraser, Vice President, Research, The Conserva-
tion Foundation, New York, N.Y.
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- David, Steven, New York, N.Y.
- Davidson, Ernest A., Director of Operations, State Highway Depart-
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- Davis, Arthur A., Deputy Assistant Commissioner for Open Space
Land, Urban Renewal Administration, Washington, D.C.
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- Davis, Hugh C., University of Michigan, Ann Arbor
- Davis, Lloyd H., Administrator, Federal Extension Service, U.S.
Department of Agriculture, Washington, D.C.
- Davis, Milton B., Housing and Home Finance Agency, Washington,
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- Davis, Ralph M., President, Puget Sound Power and Light Co.,
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- Davison, Edward K., Chairman, Committee on Public Relations,
National Sand and Gravel Association, Pittsburgh, Pa.
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- Dawson, Dr. Howard A., Washington, D.C.
- DeBard, Stuart, Secretary and Treasurer, Massachusetts Association
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- DeGroat, Lt. Col. Russell E., Defense Conservation Advisor and
Recreation Advisory Council Staff Officer, Office of the Assistant
Secretary of Defense, Washington, D.C.
- Delius, Jack C., General Manager, City Parks Department (for Hon.
Ivan Allen, Jr., Mayor of Atlanta), Atlanta, Ga.

- DeMars, Ed, Planning Director, County of Monterey, Salinas, Calif.
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- DeRicco, Elmo J., Director, Department of Conservation and Natural Resources, Carson City, Nev.
- Derr, Donald K., Sr., Director, Park and Recreation Department, City of Riverside, Calif.
- DeTurk, Charles A., Director of Parks and Recreation, Sacramento, Calif.
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- Diamond, Mrs. Henry L., Port Washington, N.Y.
- Dickerson, Mrs. Nancy, Correspondent, NBC News, Washington, D.C.
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- Dickinson, Mrs. James, Burnside, Ky.
- Dickson, Mrs. Fagan, Austin, Tex.
- Dieter, Bert, Meredith Publishing Co., Des Moines, Iowa
- Dietrich, Joseph A., President, International Shade Tree Conference, Greenwich, Conn.
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- Dineen, Rev. Michael P., Chairman, Council of Advisors, Country Beautiful Foundation, Elm Grove, Wis.
- Dingell, Hon. John D., House of Representatives, Washington, D.C.
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- Dix, Dennis, Executive Director, Crushed Stone Association, Washington, D.C.
- Dix, Leslie V., Chairman, Department of Defense Natural Resources Group, Office of the Assistant Secretary of Defense, Washington, D.C.
- Dominy, Floyd E., Commissioner, Bureau of Reclamation, U.S. Department of the Interior, Washington, D.C.
- Dorsey, T. K., President, Truck Trailer Manufacturers' Association, Elba, Ala.
- Doucet, Russell P., Assistant Sales Manager, Brown Co., Mount Holly, N.J.
- Douglas, Paul W., New York, N.Y.
- Douglass, Prof. Paul F., Director, Center for Practical Politics, Rollins College, Winter Park, Fla.
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- Dower, Michael, National Institute for Physical Planning and Construction Research, Dublin, Ireland
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- Dowling, Paul Bruce, Natural Area Council, Alexandria, Va.
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- Dowling, Mrs. Paul Bruce, Alexandria, Va.
- Dowling, Robert W., City Investing Co., New York, N.Y.
- Downs, Robert, Summit Hill, N.J.
- Doyle, Mortimer B., Executive Vice President, National Lumber Manufacturers Association (for Mark Townsend), Washington, D.C.
- Dreasen, John H., President, American Camping Association, New York, N.Y.
- Dressler, Frank W., Executive Director, Water Resources Association of the Delaware River Basin Commission, Philadelphia, Pa.
- Driscoll, Mrs. Walter E. *See* Ritenour, Rev. Scott
- Drury, Newton B., Berkeley, Calif.
- Dudley, Dr. George A., Troy, N.Y.
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- Duhamel, Mrs. Helen S., TV station KOTA, Rapid City, S. Dak.
- Dumas, W. W. *See* Williamson, R. J.
- Dunn, Stephen F., President, National Coal Association, Washington, D.C.
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- Dunn, William E., Executive Director, Associated General Contractors of America, Inc., Washington, D.C.
- Durning, Marvin B., Chairman, Inter-Agency Committee for Outdoor Recreation, Seattle, Wash.
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- Dworsky, Leonard B., Director, Water Resources Council, Cornell University, Ithaca, N.Y.
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- Dyckman, Dr. John W., University of California, Berkeley
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- Eckbo, Garrett, chairman, Department of Landscape Architecture, University of California at Berkeley; and Partner, Eckbo, Dean, Austin and Williams, San Francisco
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- Edelman, John W., National Council of Senior Citizens, Washington, D.C.
- Edinger, Dr. Lois V., President, National Education Association, Washington, D.C.
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- Edman, F. Robert, Secretary, Minnesota Outdoor Recreation Resources Commission, St. Paul
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- Edwards, Walter A., Washington Representative, Chrysler Corporation (for Lynn Townsend)
- Egan, Col. William N., Chairman of the Board, National Institute of Urbiculture, Washington, D.C.
- Eicher, George J., President, American Fisheries Society, Portland, Oreg.
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- Eichhorn, Noel, The Conservation Foundation, New York, N.Y.
- Eiseley, Loren, University Professor of Anthropology and the History of Science, University of Pennsylvania, Philadelphia
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- Eldredge, Prof. H. Wentworth, City Planning and Urban Studies Program, Dartmouth College, Hanover, N.H.
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- Eliot, Charles W., II, Professor of City and Regional Planning, Harvard University, Cambridge, Mass.
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- Ellery, Lawrence C., Landscape Architect, Smyrna, Del.
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- Ellwanger, David, Department of Conservation, Montgomery, Ala. (for Claude Kelley)
- Entwistle, Clive, New York, N.Y.
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- Ernst, Stanton G., Chairman of Professional Services, Brookside Nature Center (for Howard E. Weaver), Wheaton, Md.

Erskine, Mrs. Morse (Dorothy W.), San Francisco, Calif.

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Evans, Mark, Metro Media Corporation, Washington, D.C.

Evans, Robert W., Chairman, Washington State Arts Commission,
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Evans, Upshur, President, Cleveland Development Foundation

Eyre, Robert H., Seattle, Wash.

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Fagan, Michael R., Councilman, 2d Ward, San Bernardino, Calif.

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Fagin, Dr. Henry, Professor of Planning, Department of Urban and
Regional Planning, University of Wisconsin, Madison

Fair, Harry G., Chairman, Association of Oil Pipelines, Washington,
D.C.

Fanning, Richard, Superintendent of Forestry and Landscaping,
Detroit, Mich. (for Mayor Jerome P. Cavanagh)

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Farnsworth, Philip T., Executive Vice President, California Red-
woods Association, San Francisco

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- Fenske, Mrs. Arthur G., Executive Secretary, Great Swamp Committee, North American Wildlife Federation, New Vernon, N.J.
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- Ferebee, Mrs. Dorothy B., Young Women's Christian Association, Washington, D.C.
- Fichter, George S., Homestead, Fla.
- Fiedler, V. L., State Highway Commission, Madison, Wis.
- Finley, Stuart, Falls Church, Va.
- Finnell, James, Topeka, Kans.
- Finnell, Mrs. James, Topeka, Kans.
- Fisher, Hugo, Administrator, The Resources Agency, Sacramento, Calif.
- Fisher, Joseph L., President, Resources for the Future, Inc., Washington, D.C.
- Fisher, Sherry R., Chairman, Lewis and Clark Trail Commission, Des Moines, Iowa
- Fiskin, Terry D., President, Auto Dismantler's Association, Los Angeles, Calif.
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- Fleming, Lester, State Conservation Commission, Des Moines, Iowa
- Floyd, Joe, Sioux Falls, S. Dak.
- Focht, Jack, Lamont Geological Observatory, Columbia U., Palisades, N.Y.
- Fogle, David P., Manager, Regional Planning, Spindletop Research Center, University of Kentucky, Lexington
- Fomby, Joe B., Executive Director, Keep Oklahoma Beautiful, Oklahoma City
- Forbes, John Ripley, President, Natural Science for Youth Foundation, Westport, Conn.
- Ford, Mrs. Dorothy M., President, Business and Professional Women's Clubs, Inc., Sherman Oaks, Calif.
- Ford, Ford B., Natural Resources Committee, Sacramento, Calif.
- Ford, Henry, 2d. *See* Laux, Gar
- Ford, O'Neil, San Antonio, Tex.
- Fortenberry, Thomas (for Hon. Harrison A. Williams, Jr., U.S. Senate), Washington, D.C.
- Foster, Charles H. W. *See* Gullion, Bruce S.
- Foster, R. E., Mississippi State Park Commission, Jackson (for Mr. Sheldon Rogers)
- Fowler, Hon. Henry H., Secretary of the Treasury, Washington, D.C.

- Fowler, Mrs. Henry H., Alexandria, Va.
- Fox, Mrs. Cyril G., Director, Pennsylvania Roadside Council, Inc., Media, Pa.
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- Fox, Irving K., Associate Director, Resources for the Future, Inc., Washington, D.C.
- Fox, John G., Assistant Vice President and Attorney, American Telephone & Telegraph Co., Washington, D.C. (for Messrs. H. I. Romnes and Frederick R. Kappel)
- Francis, Mrs. Sharon F., McLean, Va.
- Fraser, Charles E., President, Sea Pines Plantation Co., Hilton Head Island, S.C.
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- Fraser, Mrs. Charles E., Hilton Head Island, S.C.
- Free, Robert L. *See* Boucher, C. Robert
- Freed, Miss Laura E., Program Manager, Keep America Beautiful, Inc., New York, N.Y.
- Freeman, Hon. Orville L., Secretary of Agriculture, Washington, D.C., 398, 479
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- Freeman, Mrs. Orville L., Chevy Chase, Md.
- Friedberg, M. Paul, New York, N.Y.
- Friendly, Fred, Columbia Broadcasting System, New York, N.Y. (for Dr. Frank Stanton)
- Frome, Michael, Alexandria, Va.
- Frost, S. L., Chief of Planning, Department of Natural Resources, Columbus, Ohio (for Fred E. Morr)
- Fugate, Douglas B., Commissioner, Department of Highways, Richmond, Va.
- Funk, John B., Chairman, State Roads Commission, Baltimore, Md.
- Fuqua, Nolen J., Duncan, Okla.
- Gallagher, Mrs. Paul C., Cochairman, Friends of the Parks, Omaha, Nebr.
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- Gardiner, Henry E., Assistant Vice President, The Anaconda Co., Washington, D.C.

- Gardner, Mrs. Charlotte, Arkansas Planning Commission, Russellville (for Gov. Orval E. Faubus and Ted J. Morley)
- Gardner, John W., Scarsdale, N.Y.
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- Garmhausen, Wilbur J., Chief, Landscape Division, State Highway Department, Columbus, Ohio
- Garnett, William, Napa, Calif.
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- Garvey, Robert R., Jr., Executive Director, National Trust for Historic Preservation, Washington, D.C.
- Gawain, Mrs. Elizabeth, State Planning Office, Sacramento, Calif.
- Gayle, R. V. H., Secretary, Island Beautification, Jamaica
- Gerdes, Robert H. *See* Kruse, Herman C.
- Gerholz, Robert P. *See* Jean, Thomas
- Gerlach, Hon. Hal W. *See* Goodin, John N.
- Ghaster, Carl. *See* Blake, Frank M.
- Gibson, Lamar. *See* Reymond, Mrs. William G.
- Gibson, Walter, Jr., Bartow, Fla.
- Gilbertson, Wesley G., Chief, Division of Environmental Engineering and Food Protection, Public Health Service, U.S. Department of Health, Education, and Welfare, Washington, D.C.
- Gilgallon, Mrs. Carl (Patricia S.), Southfield, Mich.
- Gill, Joseph N., Commissioner, Department of Agriculture and Natural Resources, Hartford, Conn.
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- Gillespie, Norvell, "Green Thumb," KRON-TV, Berkeley, Calif.
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- Gillett, Charles, President, National Association of Travel Organizations, New York, N.Y.
- Gillette, Miss E. Genevieve, President, Michigan Parks Association, Ann Arbor
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- Gilliam, Harold, San Francisco Chronicle
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- Gingher, Paul, President, American Automobile Association, Washington, D.C.
- Girdler, Reynolds, Sinclair Oil Corp., New York, N.Y. (for E. L. Steiniger)

- Gleason, M. James, Immediate Past President, National Association of Counties, Portland, Oreg.
- Glover, Miss Ruth M., Executive Director, Fred L. Lavanburg Foundation, New York, N.Y.
- Goddard, Hon. Maurice K., Secretary, Department of Forests and Waters, Harrisburg, Pa.
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- Golemon, Albert S., Houston, Tex.
- Good, Mrs. Velma, Member, National Farmers Union, Great Falls, Mont.
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- Goodenough, Richard D., Executive Director, Upper Raritan Watershed Association, Far Hills, N.J.
- Goodin, John N. (for Mayor Hal W. Gerlach of Topeka, Kans.)
- Goodin, Mrs. John, Topeka, Kans.
- Goodman, Ward, State Highway Department, Little Rock, Ark. (for Mack Sturgis)
- Goodwin, Dr. Richard H., President, The Nature Conservancy, New London, Conn.
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- Goodwin, Richard N., Arlington, Va.
- Gordon, Mrs. Kermit, Bethesda, Md.
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- Gossage, Howard L., San Francisco, Calif.
- Gossage, Mrs. Howard L., San Francisco, Calif.
- Gottschalk, John S., Director, Bureau of Sport Fisheries and Wildlife, U.S. Department of the Interior, Washington, D.C.
- Gould, Dr. Leslie H., Chairman, State Park Advisory Commission, Carson City, Nev.
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- Graf, Hon. Robert, Vermont State Senate, Montpelier
- Graham, Dr. Edward H., Consulting Engineer, Vienna, Va.
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- Gray, Hon. Gordon, Chairman, National Trust for Historic Preservation, Washington, D.C.
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- Gray, William Paul, Executive Secretary, Future Farmers of America, Office of Education, U.S. Department of Health, Education, and Welfare, Washington, D.C.
- Greeley, Arthur W., Deputy Chief, Forest Service, U.S. Department of Agriculture, Washington, D.C.
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- Greene, William C., Landscape Engineer, State Highway Department, Wethersfield, Conn.
- Greenwall, Frank K., Chairman of the Board, Keep America Beautiful, Inc., New York, N.Y.
- Greer, DeWitt C., State Highway Engineer, Austin, Tex.
- Gregg, Frank, Director, Washington Office, The Conservation Foundation
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- Gregg, Mrs. Raymond F., Bethesda, Md.
- Griffin, Robert T., Assistant Administrator, General Services Administration, Washington, D.C.
- Griffing, Mrs. Richard B., Great Falls, Mont.
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- Grosvenor, Dr. Melville Bell, President, National Geographic Society, Washington, D.C.
- Gruen, Victor, Victor Gruen Associates, Beverly Hills, Calif.
- Gronouski, Hon. John A., Postmaster General. *See* Belen, Frederick C.
- Guggenheimer, Mrs. Randolph (Elinor), Commissioner, New York City Planning Commission
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- Gulick, Luther H., Institute of Public Administration, New York, N.Y.
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- Gullion, Bruce S., Department of Natural Resources, Boston, Mass. (for Charles H. W. Foster)
- Gunther, John J., Executive Director, Conference of Mayors of the United States, Washington, D.C.
- Gutermuth, C. R., Vice President, Wildlife Management Institute, Washington, D.C.
- Gutermuth, Mrs. C. R., Washington, D.C.
- Gutheim, Frederick, Washington, D.C.
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Guthrie, Capt. W. L., Chairman, Clean Air Committee, Izaak Walton League of America, Miami, Fla.

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Haar, Dr. Charles M., Professor of Law, Harvard University, Cambridge, Mass.

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Hackendahl, Richard H., Director, National Clean-Up, Paint-Up, Fix-Up Bureau, Washington, D.C.

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Hady, Thomas F., Agriculture Finance Branch, U.S. Department of Agriculture, Washington, D.C.

Haggar, Donald A. *See* Morgan, Kenneth J.

Haik, Raymond A., Attorney at Law, Minneapolis, Minn.

Halaby, Hon. N.E., Administrator, Federal Aviation Agency, Washington, D.C.

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Hall, Rev. Cameron P., Director, The Commission on Church and Economic Life, National Council of Churches, New York, N.Y.

Hall, Leonard, Caledonia, Mo.

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Hallas, Howard E., Vice President, American Motors, Detroit, Mich.

Halprin, Lawrence, Lawrence Halprin & Associates, San Francisco, Calif.

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Hamilton, Alexander, President, American Scenic and Historic Preservation Society, New York, N.Y.

Hamilton, Calvin S., Planning Director, Los Angeles, Calif.

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Hammer, Philip, Acting Executive Director, Urban America, Inc., Washington, D.C.

Hamovit, Jerry M., Washington, D.C.

Hancock, Miss Mary Louise, Project Director, State Planning Project, Concord, N.H.

- Hand, Hon. Beulah, Oregon House of Representatives, Milwaukee, Oreg.
- Hand, Irving, Executive Director, Pennsylvania State Planning Board, Harrisburg
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- Hanke, Byron R., Supervising Landscape Architect, Federal Housing Administration, Washington, D.C.
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- Hanks, Miss Nancy, New York, N.Y.
- Hanslin, Emil, Chairman, National Association of Home Builders Environmental Design Committee, Waquoit, Mass.
- Hanson, Martin, Wisconsin Council of Resource Development and Conservation, Mellen, Wis.
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- Hardin, Dale, Manager, Transportation and Communications Department, Chamber of Commerce of the United States, Washington, D.C. (for Walter F. Carey)
- Harlan, C. Allen, Chairman, Citizens Committee, Southfield, Mich.
- Harloff, Carleton S., President, Mining and Metallurgical Society of America, New York, N.Y.
- Harper, Robert. *See* Phillips, Hal
- Harral, Henry D., Secretary of Highways, Commonwealth of Pennsylvania, Harrisburg
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- Harren, Hon. Henry M. *See* Volstad, Hon. Edward J.
- Harris, Mrs. C. B. (Gladys L.), Chairman, Anti-litter Committee, The Izaak Walton League of America, Front Royal, Va.
- Harris, Kenward K., Chairman, Citizens Council for a Clean Potomac, Washington, D.C.
on citizen action: 576-577, 580-581
- Harrison, Gordon, Associate Director, Program for Science and Engineering, The Ford Foundation, New York, N.Y.
- Harriss, Lynn M. F., Executive Director, American Society of Landscape Architects, Inc., Washington, D.C.
- Hart, Hon. Philip A., U.S. Senate, Washington, D.C.
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- Hartley, David K., Director of Institute Development, American Institute of Planners, Washington, D.C.
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- Hartman, Robert S., Arvey Corp., Winnetka, Ill.

- Hartzell, James R., President, Roadside Business Association, St. Paul, Minn.
- Hartzog, George B., Jr., Director, National Park Service, U.S. Department of the Interior, Washington, D.C.
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- Hasebroock, Mrs. William H., President, General Federation of Women's Clubs, Washington, D.C.
- Hawkes, Alfred L., Executive Director, Audubon Society of Rhode Island, Providence
- Haycock, Gus H., Director of Parks and Recreation, Houston, Tex. (for Mayor Louie Welch)
- Hays, Hon. Brooks, Rutgers University, New Brunswick, N.J.
- Healy, Patrick, Jr., Executive Director, National League of Cities, Washington, D.C.
- Hechinger, Mrs. John W., Member, Board of Directors, Young Men's Christian Association of Metropolitan Washington. (for James F. Bunting, Jr.)
- Heckert, Mrs. Clarice U., Wilmington (for Governor Charles L. Terry, Jr., of Delaware)
- Heckscher, August, President, The Twentieth Century Fund, New York, N.Y.
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- Heiskeell, Mrs. Marian S., Director of Special Activities, The New York Times, New York, N.Y.
- Hella, U. W., President, National Conference on State Parks, St. Paul, Minn.
- Heller, Alfred E., President, California Tomorrow, Sacramento
- Henderson, Miss Edde, Girl Scouts of the U.S.A. New York, N.Y. (for Miss Louise A. Wood)
- Hendricks, W. R., Game, Fish, and Parks Department, Denver, Colo. (for Harry R. Woodward)
- Hennelly, Edmund P., Socony Mobil Oil Co., New York, N.Y.
- Hennessey, Mrs. John W. Jr. (Jean L.), Hanover, N.H.
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- Herman, Justin, Director, State Highway Department, Phoenix, Ariz.
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- Herman, M. Justin, Executive Director, San Francisco Development Agency

- Hickok, David M., in care of Hon. Edmund S. Muskie, U.S. Senate, Washington, D.C.
- Hightower, Maj. Gen. Louis V., USA(Ret.) National Rifle Association of America, Washington, D.C. (for Franklin L. Orth)
- Hill, Howard E., Acting Director of Highways, Lansing, Mich.
- Hillenbrand, Bernard F., Executive Director, National Association of Counties, Washington, D.C.
- Hinds, Glester, Harlem Young Men's Christian Association, New York, N.Y. (for James F. Bunting)
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- Hirsch, Dr. Allan, Public Health Service, U.S. Department of Health, Education, and Welfare, Washington, D.C.
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- Hite, Garth, Vice President and Publisher, *Holiday*, New York, N.Y.
- Hjelle, Walter R., State Highway Commissioner, Bismarck, N. Dak.
- Hoff, Clayton M., Executive Vice President, Forward Lands, Inc., Wilmington, Del.
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- Hoff, Hon. Philip H., Governor of Vermont, Montpelier
- Hoffman, Hon. Paul G., New York, N.Y.
- Hoffman, Mrs. Paul G. (Anna), New York, N.Y.
- Hoisveen, Milo W., State Engineer, Water Conservation Commission, Bismarck, N. Dak.
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- Holborn, Frederick L., President's Council on Pennsylvania Avenue, Washington, D.C.
- Holcombe, Bryce P., Brotherhood of Painters, Decorators, and Paperhangers, Washington, D.C.
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- Holden, Russell A., Commissioner, Department of Highways, Montpelier, Vt.
- Holmes, Edward H., Director, Office of Planning, Bureau of Public Roads, Washington, D.C.
- Holst, Arthur J., Administrator, Forest Park Foundation, Peoria, Ill.
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- Holt, Mrs. Benjamin D., President, Women's National Farm and Garden Association, Portland, Maine. *See also* Keebler, Mrs. Meta Grace
- Holum, Hon. Kenneth, Assistant Secretary for Water and Power Development, U.S. Department of the Interior, Washington, D.C.
- Hornaday, Fred E., Executive Vice President, American Forestry Association, Washington, D.C.
- Hornaday, Mrs. Fred E., American Forestry Association, Washington, D.C.
- Hornbeck, Marion A., Office of General Counsel, Bureau of Public Roads, U.S. Department of Commerce, Washington, D.C.
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- Horsbrugh, Patrick, Professor of Architecture, University of Texas, Austin
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- Hossack, John W., State Engineer, Department of Roads, Lincoln, Nebr.
- Howard, Jack, Director, Neighborhood Youth Corps, Office of Economic Opportunity, Washington, D.C.
- Howe, Sydney, The Conservation Foundation, Washington, D.C.
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- Howie, George W., President, Institute of Traffic Engineers, Inc., New York, N.Y.
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- Hughes, Phillip S., Assistant Director, Office of Legislative Reference, Bureau of the Budget, Washington, D.C.
- Hughes, Thomas R., Executive Assistant to the Secretary of Agriculture, Washington, D.C.
- Hull, William H., Immediate Past President, Men's Garden Clubs of America, Minneapolis, Minn.
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- Hummel, Don, Tucson, Ariz.
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- Humphreys, H. E., Jr., Chairman, National Highway Users Conference, Washington, D.C.

- Hunt, Dr. Kenneth W., Director of Glen Helen, Antioch College,
Yellow Springs, Ohio
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- Hurd, Peter, San Patricio, N.M.
- Hutton, Sidney B., Jr., President, American Association of Nursery-
men, West Grove, Pa.
- Huxtable, Mrs. Ada Louise, The New York Times, New York, N.Y.
- Huyck, Mrs. Dorothy B., Camping Consultant, American Camping
Association, Bethesda, Md.
- Ikard, Frank N., President, American Petroleum Institute, Wash-
ington, D.C.
- Ingling, George W., Assistant Secretary, Territory of Guam, Agana
- Ingwersen, Harry E., Armco Steel Corp., Washington, D.C.
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- Insall, Donald W., Architect and Planning Consultant, London,
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- Irving, George W., Jr., Administrator, Agricultural Research Serv-
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- Ives, Howard S., State Highway Commissioner, Wethersfield, Conn.
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- Jackson, Gerald J., Vice President, Champion Papers, Inc., Chi-
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- Jackson, Hon. Henry M., U.S. Senate, Washington, D.C.
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- Jackson, Hon. Stephen S., Special Assistant to the Assistant Secre-
tary of Defense, Washington, D.C.
- Jackson, Lady. *See* Ward, Barbara
- Jacobs, Mrs. R. H., Jr. (Jane), New York, N.Y.
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- James, E. J., Senior Assistant Director, Louisiana Department of
Highways, Baton Rouge (for A. L. Stewart)
- Jamison, John R., Department of Highways, St. Paul, Minn. (for
James C. Marshall)

Jean, Thomas, Mott Foundation, Flint, Mich. (for Robert P. Gerholz)

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Jencks, Richard, Director, Pasadena Beautiful, Pasadena, Calif.

Jenner, Kenneth E. *See* Stafford, Edward E.

Jennings, James M., Columbus, Ohio

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Jensen, H. J., Vice President and General Manager, Kaiser Aluminum, Oakland, Calif.

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Johnson, Bernard G., Houston, Tex.

Johnson, Carl J., Executive Director, Interstate Commission on the Potomac River Basin, Washington, D.C.

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Johnson, Norman S., Director, Los Angeles County Department of Parks and Recreation

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Johnson, Pyke, Special Consultant, Highway Research Board, National Academy of Sciences, Washington, D.C.

Johnson, Rafer L., Los Angeles, Calif.

Jones, Charles S., Chairman of the Board, Richfield Oil Corp., Los Angeles, Calif.

Jones, Fred L., Director, Department of Parks and Recreation, Sacramento, Calif.

Jones, Lawrence, Deputy Federal Highway Administrator, Bureau of Public Roads, U.S. Department of Commerce, Washington, D.C.

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on automobile junkyards: 418-419

Jones, Woodrow W., Director, State Planning Task Force, Raleigh, N.C.

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- Kachlien, George F., Jr., Executive Vice President, American Automobile Association, Washington, D.C.
- Kappel, Frederick R. *See* Fox, John G.
- Katz, Prof. Robert D., Department of Urban Planning and Architecture, University of Illinois, Urbana
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- Katzenbach, Mrs. Nicholas deB., Washington, D.C.
- Kauffman, S. H., President, Brown & Kauffman, Palo Alto, Calif.
- Keebler, Mrs. Meta Grace, President, Women's National Farm and Garden Association, Inc., Capital Division, Washington, D.C.
(for Mrs. Benjamin D. Holt)
- Keester, Edwin, Jr., *Parade Magazine*, New York, N.Y. (for Jess Gorkin)
- Keithley, Jerome, City Manager, Palo Alto, Calif.
- Kelley, Claude. *See* Ellwanger, David
- Kelley, Hon. Ralph. *See* Stein, Gilbert T.
- Kelly, Hon. James W., Jr., Cochairman, Committee on Beautification, National League of Cities, East Orange, N.J.
- Kelly, Hon. John M., Assistant Secretary for Mineral Resources, U.S. Department of the Interior, Washington, D.C.
- Kennedy, Mrs. John M. (Gloria), Southfield, Mich.
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- Keppel, Francis, U.S. Commissioner of Education, U.S. Department of Health, Education, and Welfare, Washington, D.C.
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- Kerr, Mrs. Clarke. *See* McLaughlin, Mrs. Donald H.
- Kerr, Robert J., II, Corinthian Conservation, Annapolis, Md.
- Kilpatrick, Robert J., Rolling Hills, Calif.
- Kimball, Thomas L., Executive Director, The National Wildlife Federation, Washington, D.C.
- King, Hon. Frank W., Minority Leader, Ohio State Senate, Columbus.
- Kirch, Wayne E., State Fish and Game Commission, Las Vegas, Nev.
- Kirk, Edwin W., Coordinator, Sterling Forest Gardens, Tuxedo, N.Y.
- Klinck, Richard E., National Teacher of the Year, Wheat Ridge, Colo.
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Klussmann, Mrs. Hans, President, San Francisco Beautiful, San Francisco, Calif.

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Knopf, Mrs. Alfred A., Sr., New York, N.Y.

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Knudsen, Mrs. Valley, Chairman, Los Angeles Beautiful, Glendale, Calif.

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Koch, Robert M., President, National Limestone Institute, Inc., Washington, D.C.

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Koop, Theodore F., Vice President, CBS, Washington, Washington, D.C.

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Kozicky, Dr. Edward L., Chairman, Conservation Committee, Olin Mathieson Chemical Corp., New York, N.Y.

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Kruse, Herman C., Pacific Gas & Electric Co., San Francisco, Calif. (for Robert H. Gerdes)

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Ladley, M. Stan. *See* Taylor, J. Laning, III

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Lamm, Arnold E., Chairman, Mined-Land Conservation Conference, Washington, D.C.

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Landrum, Ney C., Director, Outdoor Recreational Planning Commission, Tallahassee, Fla.

- Lang, John A., Jr., Administrative Assistant to the Secretary of the Air Force, Washington, D.C. (for the Hon. Eugene M. Zuckert)
- Lanier, Hon. Jess, Mayor of Bessemer, Ala.
- Lardin, Mrs. H. E., Executive Secretary, The Outdoor Circle, Honolulu, Hawaii
- LaRoy, Bernard C., Executive Director, Potomac Area, American Youth Hostels, Washington, D.C.
- Larson, Philip, Housing and Home Finance Agency, Washington, D.C.
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- Lash, James E., Executive Vice President, ACTION, Council for Better Cities, New York, N.Y.
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- Lasker, Mrs. Albert D. (Mary), New York, N.Y.
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- Latimer, J. Austin, Automotive Service Industry Association, Chicago, Ill. (for J. L. Wiggins)
- Laux, Gar, Executive Director, Marketing Staff, Ford Motor Co., Detroit, Mich. (for Henry Ford, 2d)
- Lawrence, David L., Special Assistant to the President of the United States, Washington, D.C.
- Lawrence, Robert F., Manager, Sponsor Section, Electric Utility Engineering, Westinghouse Electric Corp., East Pittsburgh, Pa.
- Lee, Mrs. Cazenove. *See* Montgomery, Mrs. K. E.
- Lee, Ronald F., Trustee, National Trust for Historic Preservation, Philadelphia, Pa.
- Lees, Carlton B., Executive Secretary, Massachusetts Horticultural Society, Boston
- on new suburbia: 466-467
- Lensch, Miss Dorothea M., Director of Recreation, Bureau of Parks and Public Recreation, Portland, Oreg.
- Leonard, Richard M., President, Conservation Law Society of America, San Francisco, Calif.
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- Leonard, Mrs. Richard M. (Doris F.), Conservation Associates, San Francisco, Calif.
- Leopold, Dr. Aldo Starker, Assistant to the Chancellor, University of California, Berkeley: 548, 595

- Levin, David R., Bureau of Public Roads, U.S. Department of Commerce, Washington, D.C.
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- Levine, Aaron, Executive Vice President, Oahu Development Conference, Honolulu, Hawaii
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- Lewis, Harold R., Director, Office of Information, U.S. Department of Agriculture, Washington, D.C.
- Lewis, Dr. Philip H., Jr., Department of Landscape Architecture and Environmental Design, University of Wisconsin, Madison: 82
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- Lewis, Robert G., Administrator, Rural Community Development Service, U.S. Department of Agriculture, Washington, D.C.
- Lifton, Fred B., Executive Director, Outboard Boating Club of America, Chicago, Ill.
- Like, Irving, Babylon, N.Y.
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- Lill, Richard A., Chief Highway Engineer, American Trucking Associations, Inc., Washington, D.C. (for John E. Amos)
- Lindsay, Dr. Dale R., Massachusetts General Hospital, Boston
- Lindsey, Mrs. Harvey L., Norfolk, Va.
- Linduska, Dr. Joseph P., Director of Public Relations and Wildlife Management, Remington Farms, Chestertown, Md.
- Linsky, Prof. Benjamin A., P.E., Air Pollution, Department of Engineering, West Virginia University, Morgantown
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- Linton, Ron M., Chief Clerk and Staff Director, Committee on Public Works, U.S. Senate, Washington, D.C.
- Lipman, William P., Washington, D.C.
- Lischer, Ludwig F., Vice President in Charge of Engineering, Commonwealth Edison Co., Chicago, Ill.
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- Little, Charles E., Executive Secretary, Open Space Action Committee, New York, N.Y.
- Littlefield, Lyle, Ornamental Horticulturist, University of Maine, Orono

- Litton, Martin, Travel Editor, Sunset Magazine, Menlo Park, Calif.
Lively, Mrs. Robbie J., Little Rock, Ark.
Locher, Hon. Ralph S., Mayor of Cleveland, Ohio
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Lodge, William T., Director, Department of Conservation, Springfield, Ill.
Logan, Dr. Leslie, President, Arlingtonians for Preservation of the Potomac Palisades, Arlington, Va.
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Logue, John, Coordinator, C-I-D Trail Committee, Swarthmore, Pa.
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Loomis, Daniel P., President, Association of American Railroads, Washington, D.C.
Loomis, John E., Counsel, Bicycle Institute of America, Washington, D.C.
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Louchheim, Mrs. Katie, Washington, D.C.
Lovelace, Eldridge, Senior Partner, Harland Bartholomew & Associates, St. Louis, Mo.
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Lowenstein, Mrs. Evelyn R., Swansea, Mass.
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Lucas, William J., Forest Service, U.S. Department of Agriculture, Washington, D.C.
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- Lyons, Frank D., Director, Department of Highways, Oklahoma City, Okla.
- Lytle, Mrs. Doris H., Indianapolis, Ind.
- Maass, Arthur, Department of Government, Harvard University, Cambridge
- Macaulay, J. Frank, Lexington, S.C.
- MacClinchie, Robert C., Beardstown, Ill.
- McClinchie, Mrs. Robert C., Beardstown, Ill.
- MacDonald F. J., President, Associated Landscape Contractors of America, Inc., Phoenix, Ariz.
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- MacDonnell, Maj. Gen. Robert, Deputy Chief of Engineers, U.S. Department of the Army, Washington, D.C. (for Lt. Gen. Walter K. Wilson, Jr.)
- MacKenzie, Vernon G., Chief, Division of Air Pollution, Public Health Service, U.S. Department of Health, Education, and Welfare, Washington, D.C.
- MacMullan, Dr. Ralph A., Director, Department of Conservation, Lansing, Mich.
- Macomber, Richard H., Executive Department, State of Vermont, Montpelier
- Macrae, John, Harper & Row, New York, N.Y.
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- Madar, Miss Olga M., Recreation Director, United Auto Workers, Detroit, Mich.
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- Malt, Harold Lewis, Industrial Designer, Buffalo, N.Y.
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- Manz, Otto W., Executive Vice President, Consolidated Edison of New York, Inc., New York, N.Y.
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- Mark, Dr. Shelley M., Director, Department of Planning and Economic Development, Honolulu, Hawaii

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Marnie, Mrs. Jack, Sign Chairman, The Outdoor Circle, Honolulu, Hawaii

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Marshall, James C. *See* Jamison, John R.

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- McCormick, Clarence J., Vincennes, Ind.
- McDonald, Edwin R., President, Louisiana Dutch Gardens, Newellton, La.
- McFarland, Sidney L., Professional Staff Director, Committee on Interior and Insular Affairs, House of Representatives, Washington, D.C.
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- McGuire, Mrs. Marie C., Commissioner, Public Housing Administration, Housing and Home Finance Agency, Washington, D.C.
- McGuire, Robert Grayson, Jr., President, Urban League, Washington, D.C.
- McHarg, Prof. Ian L., Chairman, Department of Landscape Architecture, University of Pennsylvania, Philadelphia
on landscape action program: 469, 481-484
- McKeithen, Hon. John J. *See* Munson, Mrs. Palma; Wood, Mrs. Joe
- McKeldin, Hon. Theodore R., Mayor of Baltimore, Md.
- McKeon, Mrs. Daniel. *See* Carl, Mrs. William
- McKnight, Hon. Henry T., Minneapolis, Minn.
- McKnight, Mrs. Henry T., Minneapolis, Minn.
- McLane, James A., Program Coordinator, Keep Rhode Island Beautiful Program, Providence (for Hon. John H. Chafee, Governor of Rhode Island)
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- McLaughlin, Mrs. Donald H., Secretary, Save San Francisco Bay Association, Berkeley, Calif. (for Mrs. Clark Kerr)
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- McMahon, Edward V., Consulting Engineer, Southern Engineering Co., Atlanta, Ga.
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- McMorran, J. Burch, Superintendent of Public Works, Albany, N.Y.

McMullin, Rod J., President, American Public Power Association, Phoenix, Ariz.

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McNamara, Mrs. Robert S., Washington, D.C.

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McPeck, Miss Eleanor M., Washington Gallery of Modern Art

McSween, Donald L. *See* Morris, Sam

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Merrill, Perry H., Commissioner, Interagency Committee on Natural Resources, Departments of Forests and Parks, Montpelier, Vt.

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Meyers, Walter S., Vice President and General Manager, National Advertising Co., Bedford Park, Ill.

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Mighdoll, M. J., Executive Vice President, National Association of Secondary Materials Industries, Inc., New York, N.Y.

Milias, Hon. George W., California State Assembly, Sacramento

- Miller, Boyd C., President, Miller Equipment Co., Inc., Salisbury, N.C.
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- Miller, Hon. Edd N., Neosho, Mo.
- Miller, John F., Executive Secretary, National Planning Association, Washington, D.C.
- Miller, Joseph F., Executive Vice President, National Electrical Manufacturers Association, New York, N.Y.
- Miller, Dr. Richard S., Ecological Society of America, University of Saskatchewan, Saskatoon, Canada
- Miller, Mrs. Richard, President, Nevada League of Women Voters, Carson City (for Hon. Grant Sawyer, Governor of Nevada)
- Miner, Robert G., Flower Grower Magazine, New York, N.Y.
- Minjay, J. I. *See* Childs, John H.
- Mobley, Dr. M. D., Executive Secretary, American Vocational Association, Washington, D.C.
- Mock, H. Byron, Neslan & Mock, Salt Lake City, Utah
- Monk, Marion S., Jr., President, National Association of Soil and Water Conservation Districts, Batchelor, La.
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- Montgomery, Mrs. K. E., Member, National Board, League of Women Voters, Eugene, Oreg. (for Mrs. John Glessner Lee)
- Montgomery, Mrs. Phyllis, New York, N.Y.
- Moore, A. Jasper, Vice President, National Association of Real Estate Boards, Washington, D.C. (for Maurice G. Read)
- Moore, Mrs. Dorothy L., Technical Planning Associates, New Haven, Conn.
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- Moore, James C., Executive Vice President, National Auto Dealers Association, Washington, D.C.
- Moore, William W., President, Consulting Engineers Council of the United States, c/o Dames and Moore, San Francisco, Calif.
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- Moran, Clarence E., Charleston, W. Va. (for Hon. Hulett C. Smith, Governor of West Virginia)
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- Moreland, Walter C., Assistant Commissioner, Office of Real Property, General Services Administration, Washington, D.C.

- Morgan, A. Kenneth, Chief Engineer and New York General Manager, Palisades Interstate Park Commission, Bear Mountain, N.Y.
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- Morgan, Allen H., Executive Director, Massachusetts Audubon Society, Lincoln
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- Morgan, Kenneth J., Chief Counsel, Legal Section, State Highway Department, Pierre, S. Dak. (for Donald A. Haggar)
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- Morgan, Ray, Kansas Correspondent, Kansas City Star, Kansas City, Kans.
- Morr, Fred E. *See* Frost, S. L.
- Morris, Newbold, Commissioner of Parks, City of New York
- Morris, Raymond E., Managing Director, National Auto and Truck Wreckers Association, Inc., San Mateo, Calif.
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- Morris, Sam, Deputy Commissioner, Department of Conservation, Nashville, Tenn. (for Donald L. McSween)
- Morton, John O., Commissioner, Department of Public Works and Highways, Concord, N.H.
- Mosebrook, Harry S., Weyerhaeuser Co., Tacoma, Wash. (for B. L. Orell)
- Moser, John P., President, Soap and Detergent Association, New York, N.Y.
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- Mosier, Mrs. Martha, Department of Recreation, Indiana University, Bloomington
- Moss, John P., President, American Roadbuilders' Association, Leeds, Ala.
- Mott, William Penn, Jr., Director, East Bay Regional Park District, Oakland, Calif.
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- Mountain, Barry F., Vice President, Daniel, Mann, Johnson & Mendenhall, Washington, D.C.
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- Muccio, Mrs. John, National Council of Women, Washington, D.C.
- Mueller, Dr. E. W., Secretary, Churches in Town and Country, National Lutheran Council, Chicago, Ill.
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- Muir, Dalton, Park Naturalist, Division and Branch of National Parks, Department of Northern Affairs and National Resources, Ottawa, Canada
- Muncy, Dr. (Mrs.) Dorothy A., Member, Board of Governors, American Institute of Planners, Arlington, Va.
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- Munro, Dr. David A., Chief, Canadian Wildlife Service, Ottawa, Canada
- Munson, Mrs. Palma, Baton Rouge, La. (for John J. McKeithen, Governor of Louisiana)
- Murray, Mrs. Albert N., Tulsa, Okla.
- Murray, Stanley A., Chairman, Appalachian Trail Conference, Inc., Washington, D.C.
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- Naden, Kenneth D., Executive Vice President, National Council of Farmer Cooperatives, Washington, D.C.
- Naftalin, Hon. Arthur, Mayor of Minneapolis, Minn.
- Nash, Robert J., Washington, D.C.
- Neel, Samuel E., General Counsel, Mortgage Bankers Association of America, Washington, D.C.
- Nelson, DeWitt, Director of Conservation, Sacramento, Calif.
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- Nelson, Irvin T., Church Building Committee, Salt Lake City, Utah
- Nelson, Mrs. J. Melvin, President, Arizona Roadside Council, Phoenix, Ariz.
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- Nelson, Samuel B., General Manager and Chief Engineer, Los Angeles Department of Water and Power, Los Angeles, Calif.
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- Nelson, Mrs. Samuel B., Los Angeles, Calif.

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- Odom, Mrs. Will E., Austin, Tex.
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- O'Harrow, Dennis, Executive Director, American Society of Planning Officials, Chicago, Ill.: 328
- Olsen, Mrs. Duane, Chairman, North Dakota Community Improvement Program, Manvel
- Olson, Sigurd F., Ely, Minn.
- Olson, Wayne H., Commissioner, Department of Conservation, St. Paul, Minn.
- O'Neil, Mrs. James T. (Ruth A.), President, National Association of County Park and Recreation Officials, Phoenix, Ariz.
- Orcutt, Hon. Robert S., Chairman, Assembly Committee on State Development, State of Connecticut, Hartford
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- Orell, B. L. *See* Mosebrook, Harry S.
- O'Rourke, Msgr. Edward W., Executive Director, National Catholic Rural Life Conference, Des Moines, Iowa
- Orth, Franklin L. *See* Hightower, Maj. Gen. Louis V.
- Ost, Rev. Warren W., Director, A Christian Ministry with People in Leisure-Recreation, National Council of Churches, New York, N.Y.
on citizen action: 577, 590-591
- Ostrower, Donald A., Vollmer Associates, New York, N.Y.
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- Ottinger, Hon. Richard, House of Representatives, Washington, D.C.
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- Outman, Boyd J., Boyd J. Outman & Associates, Washington, D.C.
- Owens, Mrs. C. G., Immediate Past President, General Federation of Women's Clubs, New Rockford, N. Dak.
- Owens, James, Director, Office of Metals and Minerals, U.S. Department of Commerce, Washington, D.C.
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- Owings, Nathaniel A., Big Sur, Calif.
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- Pack, David M., Commissioner, Department of Highways, Nashville, Tenn.
- Page, Rev. Herman, Kansas City, Mo. (for Dean Francis B. Sayre, Jr.)
- Paiewonsky, Hon. Ralph M., Governor of Virgin Islands, Charlotte Amalie
- Partain, Lloyd E., Assistant to the Administrator on Recreation, Soil Conservation Service, U.S. Department of Agriculture, Washington, D.C.
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- Paynter, Dr. David H., Director, Job Corps Conservation Centers, Office of Economic Opportunity, Washington, D.C.
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- Pelz, Richard K., Division of Legislation, Office of the Solicitor, U.S. Department of the Interior, Washington, D.C.

- Penfold, Joseph W., Conservation Director, Izaak Walton League of America, Washington, D.C.
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- Perkins, Robert L., Jr., Wildlife Preserves, Inc., Tenafly, N.J.
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- Peterson, Gunnar A., Outdoor Recreation Planner, Metropolitan Welfare Council of Chicago, Ill.
- Peterson, Ralph D., Chairman, Denver Beautiful, Inc., Colo.
- Pettit, Ted S., Conservation Director, Boy Scouts of America, New Brunswick, N.J.
- Phillips, Hal, Auto Dismantler's Association, Los Angeles, Calif.
 (for Robert Harper)
- Phillips, Mrs. Neill, National Parks Chairman, Garden Clubs of America, Washington, D.C.
- Phillips, Rear Adm. Neill, USN (Ret.), Washington, D.C.
- Phillips, Paul L., President, United Papermakers and Paperworkers, Albany, N.Y.
- Phillips, William B., New York, N.Y.
- Pierson, Robert, Doylestown, Pa.
- Pincus, Paul, Landscape Architect, The Capitol, Washington, D.C.
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- Pinkerton, Hon. Lucille, Member, House of Representatives, Alaska State Legislature, Ketchikan
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- Poole, Mrs. Dorothy, Wildlife Management Institute, Washington, D.C.
- Pough, Dr. Richard H., Chairman, Open Space Action Committee, New York, N.Y.
- Pozen, Walter I., Assistant to the Secretary, U.S. Department of Interior, Washington, D.C.

- Prahl, Charles G., Director, Department of Highways, Olympia, Wash.
- Prendergast, Joseph, Executive Director, National Recreation Association, New York, N.Y.
- Prentiss, Maj. Gen. Louis W., USA (Ret.), Executive Vice President, American Road Builders' Association, Washington, D.C.
- Price, Mrs. Holton R., Jr. *See* Coffin, Mrs. Tristram
- Price, Mrs. Leon S., National Secretary, National Congress of Parents and Teachers, Dallas, Tex. (for Mrs. Jennelle Moorhead)
- Price, Mrs. Margaret, Vice Chairman, Democratic National Committee, Washington, D.C.
- Price, Reginald C., Deputy Director, California Department of Water Resources, Sacramento (for William E. Warne)
- Proler, Sam, Proler Steel Co., Houston, Tex.
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- Pushkarev, Boris, Chief Planner, Regional Plan Association, New York, N.Y.
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- Quadland, H. P., H. P. Quadland Co., New York, N.Y.
- Quigley, James M., Assistant Secretary, U.S. Department of Health, Education, and Welfare, Washington, D.C.
- Quigley, Dr. Stephen T., Commissioner of Administration, St. Paul, Minn.
- Quinn, Mrs. Connie, Director, Division of Cleanup and Beautification, Department of Natural Resources, Frankfort, Ky. (for J. O. Matlick)
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- Quinton, Harold, President, National Association of Electric Companies, Los Angeles, Calif.
- Radin, Alex, General Public Power Association, Washington, D.C.
- Rairdon, Smith L., Executive Vice President, Owens-Illinois, Inc., Toledo, Ohio
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- Randolph, Frank B., Washington, D.C.

- Ranich, Peter, Technical Assistant, United Auto Workers, Detroit, Mich.
- Raup, Dr. Hugh M., Director, Department of Forestry, Harvard University, Cambridge, Mass.
- Rawlings, William V., Capron, Va.
- Read, Mrs. Bayard W. (Edith), Rye, N.Y.
- Read, Maurice G. *See* Moore, A. Jasper
- Reese, Mrs. Mamie B., President, National Association of Colored Women's Clubs, Inc., Washington, D.C.
- Rehm, Glenn E., Boggs & Rehm, St. Albans, W. Va.
- Reid, Gene C., Director, City Park System, Tucson, Ariz.
- Reilly, Col. John A. (for Hon. Richard J. Daley, Mayor of Chicago)
- Reistle, C. E., Jr. *See* Seger, J. L.
- Renehan, Mrs. L. A. (Ann H.), American Institute of Architects, New York, N.Y.
- Renne, Dr. Roland R., Director, Office of Water Resources Research, U.S. Department of the Interior, Washington, D.C.
- Repplier, Theodore S., President, Advertising Council, Inc., Washington, D.C.
- Reuther, Hon. Walter P., President, United Auto Workers, Detroit, Mich.
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- Riaski, William A., Executive Director, Izaak Walton League of America, Glenview, Ill.

- Richman, Saul, New York, N.Y.
- Riklin, Sam, Beautify San Antonio Association, San Antonio, Tex.
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- Robbins, Ira S., President, National Association of Housing and Redevelopment Officials, New York, N.Y.
- Robbins, T. C., Director, State Highway Department, Jackson, Miss.
- Robertson, Jack B., President, Washington Roadside Council, Inc., Seattle
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- Rodman, Roy S., Landscape Architect, Highway Department, Austin, Tex.
- Roe, Robert A., Commissioner, Department of Conservation and Economic Development, Trenton, N.J.
- Roedel, Mrs. Milton J., Chairman, Open Space Committee, PEN-JERDEL, Wilmington, Del.
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- Ruske, Joseph, Board of Trustees, University of Michigan, Ann Arbor
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- Rydbeck, Vernon A., Manager, Distribution Equipment Sales, General Electric Co., Schenectady, N.Y.
- Santiago, Garcia, Director, Planning Board, San Juan, P.R.
- Sargent, Francis W., Commissioner, Department of Public Works, Boston, Mass.
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- Sasaki, Hideo, Sasaki-Dawson-DeMay & Associates, Watertown, Mass.
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- Saylor, Hon. John P., House of Representatives, Washington, D.C.
- Schafer, Roger, Fred L. Lavanburg Foundation, New York, N.Y.
- Schanche, Don A., Editor, Holiday Magazine, New York, N.Y.
- Scheffey, Dr. Andrew J. W., Associate Professor, Resource Policy, Department of Forestry and Wildlife Management, University of Massachusetts, Amherst
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- Schmidt, William, Acting Commissioner, Public Building Service, General Services Administration, Washington, D.C.

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Schruben, Luke M., Assistant Administrator, Federal Extension Service, U.S. Department of Agriculture, Washington, D.C.

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Schussheim, Morton J., Assistant Administrator, Office of Program Policy, Housing and Home Finance Agency, Washington, D.C.

Schuyler, James R., Chief Engineer, State Highway Department, Trenton, N.J. (for Dwight R. G. Palmer)

Schwan, Charles F., Jr., Director, Washington Office, Council of State Governments

Schwartz, Benjamin, Executive Consultant, National Federation of Independent Scrap Dealers, Inc., Brooklyn, N.Y.

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Scott, Mrs. J. Lewis, Natural Resources Consultant, Pittsburgh, Pa.

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Seibert, Dr. Russell J., President, American Horticulture Society, Kennett Square, Pa.

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- Sentner, Richard F., Commercial Executive Vice President, United States Steel Corp., Pittsburgh, Pa.
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- Shane, Joseph, Vice President, Swarthmore College, Pa. (for Courtney Smith)
- Shannon, William, Editorial Board, *The New York Times*, New York, N.Y.
- Shapiro, Sidney M., Long Island State Park Commission, New York, N.Y.
- Sharp, Mrs. Henry D., Providence, R.I.
- Sharpe, Mrs. C. F. S., League of Women Voters of the United States, Washington, D.C.
- Shaw, Will, Foundation for Environmental Design, Carmel, Calif.
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- Shomon, Dr. Joseph J., Director, Nature Centers Division, National Audubon Society, New York, N.Y.
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- Siekman, P. W., Vice President, Pennsylvania Power and Light Co., Allentown, Pa.
- Silliman, Minott, Jr., President, The Soil Conservation Society of America, Madison, Wis.
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- Sillin, Lelan F., Jr., President and Chief Executive Officer, Central Hudson Gas and Electric Corp., Poughkeepsie, N.Y.
- Simon, Robert E., Jr., President, Reston, Va.
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- Singletary, Dr. Otis A., Director, Job Corps, Office of Economic Opportunity, Washington, D.C.
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- Siri, William E., President, The Sierra Club, San Francisco, Calif.
- Skerritt, James L., Technical Planning Associates, New Haven Conn.
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- Slayton, William L., Commissioner, Urban Renewal Administration, Housing and Home Finance Agency, Washington, D.C.
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- Smart, Mrs. Alice F., Executive Secretary, National Landscape Nurserymen's Association, Leesburg, Fla.
- Smith, Anthony Wayne, President and General Counsel, National Parks Association, Washington, D.C.
- Smith, Mrs. Chloethiel Woodard, Chloethiel Woodard Smith & Associates, Washington, D.C.
- Smith, Courtney. *See* Shane, Joseph
- Smith, Edwin R., Director, Parks and Recreation Department, Eugene, Oreg.
- Smith, Mrs. Ellson F., President, Camp Fire Girls, Inc., New York, N.Y.
- Smith, Frank, Vice President, Texas Salvage Dealers Association, Austin
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- Smith, Fred, New York, N.Y.
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- Smith, Glenn L., Assistant to the Director, Rural Areas Development Staff, U.S. Department of Agriculture, Washington, D.C.
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- Smith, J. Stanford, Vice President, Marketing and Public Relations Services, General Electric Co., New York, N.Y.
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- Smith, Julian W., Director, Outdoor Education Project, College of Education, Michigan State University, East Lansing
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- Smith, Wilbur S., Wilbur Smith & Associates, Columbia, S.C.

- Snider, M. J., Chief Engineer, State Highway Commission, Jefferson City, Mo.
- Solberg, Dr. Erling D., U.S. Department of Agriculture, Washington, D.C.
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- Spitznagel, Harold, Fellow, American Institute of Architects, Sioux Falls, S. Dak.
- Spivak, Lawrence E., Meet the Press, New York, N.Y.
- Spooner, Paul L., Jr., Counsel, Roadside Business Association, Minneapolis, Minn.
- Sprague, Irvine, Department of Finance, State of California (for Hon. Edmund G. Brown, Governor of California)
- Sprouse, James M., Manager, Highway Division, Associated General Contractors of America, Inc., Washington, D.C.
- Spurr, Dr. Stephen H., Dean, School of Natural Resources and The Graduate School, University of Michigan, Ann Arbor
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- Staats, Mrs. Elmer B., Washington, D.C.
- Staff, Virden E., Chief Highway Engineer, Division of Highways, Springfield, Ill.
- Stafford, Edward E., Deputy Director, Associated Landscape Contractors of America, Inc., Baltimore, Md. (for Kenneth E. Jenner)
- Staley, K. E., Vice President, Marketing Staff, General Motors, Detroit, Mich. (for John Gordon)
- Stansfield, Donald H., Chief, Statewide Planning Bureau, Trenton, N.J. (for B. Bud Chavooshian)
- Stanton, Dr. Frank. *See* Friendly, Fred
- Stapp, R. G., Superintendent and Chief Engineer, State Highway Department, Cheyenne, Wyo.
- Stapp, William B., Coordinator of Conservation Studies, University of Michigan, Ann Arbor
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- Stark, Paul C., Louisiana, Mo.

- Steber, Robert, President, Outdoor Writers Association of America, Inc., Nashville, Tenn.
- Steen, Melvin O., Director, Game, Forestation and Parks Commission, Lincoln, Nebr.
- Stein, Gilbert T., Chairman, Neighborhood Improvement Committee, Lookout Mountain, Tenn. (for Mayor Ralph Kelley)
- Steiniger, E. L. *See* Girdler, Reynolds
- Stephenson, J. W., San Jose, Calif.
- Sterling, Rt. Rev. Chandler, Diocese of Montana, Helena
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- Stevens, David H., Chairman, State Highway Commission, Augusta, Maine
- Stevens, Lawrence N., Associate Director, Bureau of Outdoor Recreation, U.S. Department of the Interior, Washington, D.C.
- Stewart, A. L. *See* James, E. J.
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- Stewart, Zach Redington, Osborne & Stewart, Architects, San Francisco, Calif.
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- Stickney, Charles W., Clear Lake, Minn.
- Stitzenberger, Mrs. Virginia, Director of Community Improvement, General Federation of Women's Clubs, Washington, D.C.
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- Stocker, Donald N., Manager, Area Development, Pennsylvania Power and Light Co., Allentown, Pa.
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- Stoeffhaas, William F., President, Bicycle Institute of America, Chicago, Ill.
- Stokes, Dr. J. Buroughs, Manager, Washington, D.C. Office, The First Church of Christ, Scientist (for Dr. Edward Froderman)
- Stone, Edward Durell, New York, N.Y.
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- Stone, Lawrence M., Tax Legislative Counsel, Washington, D.C.
- Stone, Mrs. Victor J. (Susan), Urbana, Ill.
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- Stong, Benton J., Washington, D.C.

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Story, William S., Executive Vice President, Scrap Iron and Steel Institute, Washington, D.C.

Strong, Mrs. Michael L. (Ann Louise), Director, Institute of Legal Research, University of Pennsylvania, Philadelphia

Stroud, Richard H., Executive Vice President, Sport Fishing Institute, Washington, D.C.

Struble, Robert G., Executive Vice President, Brandywine Valley Association, West Chester, Pa.

Stuart, Lawrence, Director, State Park and Recreation Commission, Augusta, Maine

Sturgis, Mack. *See* Goodman, Ward

Sullivan, Mrs. William H., Jr., President General, Daughters of the American Revolution, Washington, D.C.

Sutherland, Marvin M., Director, Department of Conservation and Economic Development, Richmond, Va.

Sutton, Hirst, Chief, Labor and Welfare Division, Bureau of the Budget, Washington, D.C.

Swain, Robert O., President, International Road Federation, Washington, D.C.

Swidler, Joseph C., Chairman, Federal Power Commission, Washington, D.C.

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Swift, Lloyd W., Executive Secretary, World Wildlife Fund, Washington, D.C.

Sylvan, William C., Wilbur Smith & Associates, New Haven, Conn.

Symonds, Mrs. Gardiner, Houston, Tex.

Tankel, Stanley B., Planning Director, Regional Plan Association, New York, N.Y.

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Taylor, Dr. Clyde W., General Director, The National Association of Evangelicals, Wheaton, Ill.

Taylor, J. Laning, III, Tulsa, Okla. (for M. Stan Ladley)

Taylor, Mrs. Rene Jones, Washington, D.C.

Teater, Robert W., Assistant Director, Department of Natural Resources, Columbus, Ohio (for Hon. James A. Rhodes, Governor of Ohio)

- Temko, Allan, Twentieth Century Fund, University of California, Berkeley
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- Teplow, Leo, Vice President, American Iron and Steel Institute, New York, N.Y. (for John P. Roche)
- Terrell, John E., Director, Community Improvement Programs, Sears, Roebuck & Co., Chicago, Ill.
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- Tharp, Max M., Assistant to the Director, Natural Resource Economics Division, Economic Research Service, U.S. Department of Agriculture, Washington, D.C.
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- Thompson, Carl F., Director, Broward County (Fla.) Parks Department, Fort Lauderdale
- Thompson, Glenn, Editor, The Dayton Journal-Herald, Dayton, Ohio
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- Thompson, Myron, Honolulu, Hawaii (Senator Daniel K. Inouye)
- Thun, Ferdinand K., Chairman of the Board, Berkshire International Corp., Reading, Pa.
- Thurston, Dr. William, Staff Geologist, Geological Survey, U.S. Department of the Interior, Washington, D.C. (for Dr. Thomas B. Nolan)
- Tidmarsh, Pat M., Tucson, Ariz.
- Tocker, Philip, Chairman of the Board of Directors, Outdoor Advertising Association of America, Chicago, Ill.
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- Towell, William E., Director, Missouri State Conservation Commission, Jefferson City, Mo.
- Tower, John L., Vice President, American Forest Products Industries, Inc., New York, N.Y. (for J. D. Bronson)
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- Train, Judge Russell E., African Wildlife Leadership Foundation, Inc., Washington, D.C.
- Trainor, Harry J., Executive Director, Federal Power Commission, Washington, D.C.
- Troester, Carl A., Jr., Executive Secretary, American Association for Health, Physical Education and Recreation, Washington, D.C.
- Trussell, Douglas, Washington Representative, National Association of Manufacturers
- Tunnard, Christopher, Department of City Planning, Yale University, New Haven, Conn.
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- Urbahn, Max O., American Institute of Architects, New York, N.Y.
- ValPreda, Peter, President, National Auto Dealers Association, Washington, D.C.
- van der Rohe, Ludwig Mies, Chicago, Ill.
- Vaughan, W. R., President, Southeastern Displays, Inc., Anchorage, Ky.
- Vaydik, Frank, President, American Institute of Park Executives, Inc., Kansas City, Mo.
- Vennard, Edwin, Managing Director, Edison Electric Co., New York, N.Y.
- Verkler, Jerry T., Senate Committee on Interior and Insular Affairs, Washington, D.C.
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- Voigt, Lester P., President, International Association of Game, Fish and Conservation Commissioners, Madison, Wis.
- Voigt, William, Jr., Executive Director, Interstate Advisory Committee on the Susquehanna River Basin, Harrisburg, Pa.
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